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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and to improve the character of the service rendered to the public.

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TONNAGE ENROLLED IN THE L. C. A.

The tonnage enrolled in the Lake Carriers' Association now reaches the gratifying total of 1,000,000 tons, a gain of over 200,000 tons or one-fifth over the register as shown at the annual meeting held in Detroit, and doubling the membership as shown eight years ago.

This considerable gain and improvement in membership of the Lake Carriers' Association is due in no small measure to the energy and influence exercised by Capt. Geo. P. McKay, the permanent treasurer of the association, who, since he has devoted his time exclusively to the interests of the organization has made a splendid record in his official capacity as treasurer and also chairman of the committee on aids to lake navigation.

While Chicago has been drawn upon for a large proportion of the recently increased membership, the main point at issue is to seek the general enrollment of Canadian lake tonnage on the register of the Lake Carriers' Association in accordance with the views expressed at the last annual meeting. It must be said that Canadian vessel owners have been rather shy in placing their tonnage on the membership roll, chiefly, perhaps, on account of a misunderstanding of the objects desired to be accomplished by the association and slight, though misplaced prejudices derogatory to the otherwise beneficial amalgamation of the interlake and interlateral tonnage. It is expected however, that Capt McKay, with all proper and influential assistance, will be placed in such a position as to lay before the Canadian vessel owners, a representation of the benefits, etc., to be derived from membership in the Lake Carriers' Association, and that before the close of the present season a majority of their lake bottoms will be found enrolled on the lists of the organization, and so that all may work in harmony for the future and best interests of lake and interlake transportation influences.

HUDSON BAY FISHING RIGHTS.

The contemplated construction of several lines of railway to Hudson Bay is arousing fresh interest in the valuable fisheries of those northern waters, and it seems probable that the Dominion Department of Fisheries will shortly concede valuable privileges to a company which has already applied for them. Three years ago these rights were asked of the government by a Canadian company, which desired to operate in James Bay, but they were refused on the ground that most of the area applied for lay within the jurisdiction of the Province of Quebec. The present application is for rights in waters north of provincial jurisdiction, and will doubtless be granted. Hitherto these grounds have never been exploited to any extent by Canadians. The wealth of these northern waters has been taken possession of by the Eskimos, the officers of the Hudson Bay Co. and the crews of whaling and other vessels from the north of Scotland and the Atlantic ports of some of the New England States. The company now applying for exclusive rights is composed mainly of Ontario people.

STEEL MAKING IN CANADA.

A report on the iron and steel industry of Canada recently compiled in the State Department at Washington, contains an observation that a country that has vast deposits of iron ore has a solid foundation for commercial ascendancy. Few countries have more iron ore than the dominion. The report goes on to say that Americans were the first to realize the immense resources there in iron ore and coal. They have entered and joined capital with Canadians of wealth and organized the iron and steel industry.

There are 18 rolling mills and steel works completed in the dominion. One of these makes steel in a special Bessemer converter, one makes Tropenas steel, and four make open-hearth steel, while two standard Bessemer steel plants and one open-hearth steel plant are being built. The annual capacity of all plants is: Standard, Bessemer, Tropenas and special Bessemer ingots and castings, 301,400 gross tons; open-earth ingots and castings, 537,000 gross tons; total ingots and castings, 838,400 tons; rolled products, 981,900 tons.

Steel rails and heavy sections of structural steel form a large part of the iron consumed in Canada. Up to a recent date, every ton of this material was imported from foreign sources; now, the country is beginning to export. The new mills at Sault Ste. Marie are producing both steel rails and structural steel. At Sydney, a steel-rail mill is in process of construction, and steel billets and blooms are already being made. At New Glasgow, Hamilton and Collingwood a similar expansion in other lines of steel is taking place. In all of these places American capital is dominant.

Although the production of pig iron for 1901 was about three times as large as that for the year previous, the building of new plants insures a much greater increase this year. Canada does not yet produce nearly enough for home wants, which are estimated at 800,000 tons a year.

SCOTCH SHIPBUILDING RETURNS.

During the month of May Scottish shipbuilders launched 40 vessels aggregating 59,248 tons, as compared with 28 vessels of 46,660 tons in the previous month, and 35 vessels of 56,132 tons in May, 1901. To last month's total the Clyde contributed 33 vessels and 57,278 tons. This brings the total Scottish launches during the five months of the year up to 211,908 tons, to which the Clyde yards have contributed 196,803 tons. Last month's list included 4 twin-screw steamers, 15 screw steamers, 2 paddle steamers, 2 barques, 2 steam yachts, 1 tug, 2 trawlers, 2 stern-wheel steamers, 4 barges, and 6 sailing yachts. Of the vessels 1 was of 9,000 tons, 1 between 7,000 and 8,000 tons, 2 between 5,000 and 6,000, 2 between 4,000 and 5,000, 3 between 3,000 and 4,000, 1 between 2,000 and 3,000, 3 between 1,000 and 2,000, 4 between 500 and 1,000, 15 between 100 and 500, and 8 under 100 tons. Of the total tonnage 31,117 was for the Thames, 7,098 for the Clyde, 5,466 for the Mersey, 4,560 for Russia, 3,100 for Greece, 2,500 for Spain, 1,500 for Belgium, 1,016 for the Forth, 600 for Canada, etc.

THE PANAMA CANAL.

By a vote of 42 to 34 the United States Senate on Thursday of this week, June 18, passed the Spooner bill authorizing the construction of an isthmian ship canal on the Panama route. Among the provisions of the bill the following are the most important. The President of the United States is directed to purchase the property of the new Panama Canal Co. for a sum not exceeding \$40,000,000, and to obtain a satisfactory concession from the government of Columbia. He is to proceed to construct a canal on the Panama route, operating through a commission of seven members, four of whom are to be engineers and two officers of the army and navy. Ten million dollars is appropriated from the treasury for this purpose, and made immediately available. For construction of the canal the president is authorized to raise \$130,000,000 by the sale of \$20 twenty-year 2 per cent. gold bonds, to be sold to the people and not through any syndicate. This sum of \$130,000,000 is solely for the construction of the canal. At the proper time congress will appropriate money in addition to the \$10,000,000 carried by his bill to pay for the property of the Panama Co., and the concession from Columbia. In case the President shall be unable to secure satisfactory title and concessions on the Panama route within a reasonable time, he is to proceed to secure the same by way of the Nicaragua route.

CONTRACTS FOR SIX STEEL STEAMERS.

Contracts have been entered into this week by the American Ship Building Co., for the construction of a fleet of six steel cargo steamers with a capacity of from 5,200 to 6,200 tons each, and an order for a seventh boat is likely to be placed. The contracts represents the expenditure of about \$1,500,000, a large portion of which will be consumed in the labor account.

The United States Transportation Co., Capt. W. W. Brown, Cleveland, general manager, placed the orders for five of the steamers, having the following general hull dimensions, etc. The largest of the steamers will be 434 feet over all, 414 feet keel, 50 feet beam and 28 feet deep. Three of them will be 400 feet over all, 380 feet keel, 50 feet beam and 28 feet deep. The smallest of the steamers will be 390 feet over all, 370 feet keel, 48 feet beam and 28 feet deep. They will all have triple-expansion engines and Scotch boilers, which will be fitted with Ellis & Eaves induced draft. The boats will be built at the Lorain and South Chicago yards, and, according to the contract, they are to be completed April 15, 1903. In carrying capacity the boats will range from 5,200 to 6,200 tons on eighteen feet.

Capt. Brown, general manager of the United States Transportation Co., is well fitted to become a ruling spirit in lake transportation circles, he will have twelve steel steamers to manage next season. The new steel steamers W. H. Gratwick, L. C. Smith, William Nottingham, H. S. Wilkenson, W. W. Brown and A. G. Brown are now in service, and the John B. Cowle, building at Port Huron, will come out in September. Capt. Brown is also managing owner of the wooden steamer George Presley. Mr. L. C. Smith, of Syracuse, N. Y., is president of the United States Transportation Co., and the shareholders are men of great wealth and influence in their several lines of business.

The order for the sixth steamer was placed by Mr. Henry A. Hawgood, Cleveland. This boat will be a duplicate of the steamers Etruria and Bransford, of the Hawgood fleet, which came out this season. She will be 434 feet over all, 414 feet keel, 50 feet beam and 28 feet deep. She will have triple expansion engines and Scotch type boilers. This boat will also be ready for business by the opening of navigation next spring, when the Hawgoods will have five big steel steamers. In addition to the new boat they will have the Curry, Etruria, Bransford, Jenks and Nye and consort the wooden steamer Iosco and schooner Olive Jeanette.

MANNING WAR SHIPS.

The scarcity of trained seamen in the United States navy is more apparent on the United States receiving ship Columbia, at the Brooklyn Navy yard, at present, than at any time for several years, says the Brooklyn Eagle. The executive officers on that ship are compelled to daily notify the Navigation Bureau that they are unable to fill orders for drafts of men which are required for various branches of the service. There are at present on the receiving ship 290 men of all classes. Of this number 250 are landsmen who are new in the service and who are not competent to be put into a government ship for duty. The result is a great embarrassment both to local officers and to the chiefs of the bureau.

A year ago this month there were about 800 men on board the receiving ship Vermont. There were all classes of sailors, and few of the orders from the department at Washington had to be sent back without being filled. The Columbia cannot at best accommodate more than 400 men. Her capacity at present, however, is not being at all tested. The training ships are liable to make up their full complement of landsmen for cruisers, and there are hundreds of this class who are on the waiting list. That does not, however, relieve the strained condition which exists in the navy.

The one particular reason which is assigned for this great dearth of sailors is the fact that the navy is in the period of transition from the old to the new time service. The seamen were formerly compelled to enlist for three years. In 1899 the new law requiring them to enlist for four years took effect. At the present time, therefore, the old three-year men are going out of the service, not caring to enlist for four years more, and many new men are not willing to enlist for four years. The fact that a year has been added to the length of the service has in itself a bad effect. The example of some men who have served three years and who are willing to continue for another term of years does not tend to increase the regular enlistments.



DETROIT.

The wrecking tug Reliable has commenced work raising the Canadian schooner Gleniffer, sunk in the St. Clair flats, opposite Star Island dock.

The government steamer Hancock is engaged in blowing up the wreck of the barge Waud, which was sunk by collision with the steamer Lagonda on the middle ground off Port Huron some months ago. It is thought she will be got out of the way in a few days.

The collision litigation between the owners of the barge Sagamore and steamer Northern Queen, is likely to be prolonged. It is announced that Judge Hazel, who heard the case last winter, will not reach a decision until after the summer's vacation in September. After that it is expected that there will be an appeal and another year of waiting.

The steamer Chili, which passed down on Tuesday reported losing two men overboard on Lake Huron, between Lexington and Lake Port. A lifeboat was lowered but the men sank before assistance reached them. The names of the lost men were John Osier, an oiler, and Henry Charlier, fireman. The two men were scuffling when the accident occurred.

Albert Morris, engineer of the trust tug Martin, stationed at Amherstburg, Ont., wants it understood that he is no non-union man. The trust engaged him last April for the Martin, with the understanding that she would be turned over into a Canadian tug, but has so far failed to fulfill this promise. Morris' fidelity to the Tug Men's Protective Association came to a climax Saturday, with the result that the tug Martin is tied up at Amherstburg without an engineer.

Norman B. Conger, Inspector and Marine Agent of the United States Weather Bureau, with headquarters at this port, is engaged in making an exhaustive study of the change in lake levels in Lake Erie as a result of the variations of the wind. It is expected that the result of his investigations will result in material advantage to shipping interests as it will enable the Weather Bureau to furnish them with advance information as to the depth of water at Lake Erie ports as the result of wind fluctuations.

Experiments are being made by the Detroit Ship Building Co. to determine the practicability of the use of oil for fuel on lake steamers, and up to the present a full measure of success has been obtained. Three barrels of crude petroleum weighing 300 pounds will, it is claimed, give the same amount of heat as a ton of coal. The heat obtainable from oil is found to be practically unlimited, a fire brick having been melted in the course of the experiments. It is proposed to use compressed air instead of steam for an atomizer for feeding the burners with oil, steam having been tried on Atlantic and Gulf steamers. It is claimed that the use of oil would do away with many firemen, and also be a great advantage in doing away with the handling of ashes and in avoiding the trouble frequently experienced with clinkers and poor coal.

The Detroit & Cleveland Navigation Co. is contemplating the construction of a new side-wheel passenger and freight steamer for the route between Cleveland and Detroit. It is expected that the matter will take formal shape at the next meeting of the board of directors, which will be held in a couple of weeks. The steamer will be a duplicate of the two new boats which are just now starting to run on the Detroit and Buffalo route. It is said that the boats are to take care of the additional business which the company now feels itself unable, with its present service, to handle. It is said in vessel circles that the Detroit Ship Building Co. would be engaged in lucrative work if they turned out a fine large passenger steamer every year, as the demands for such tonnage is vastly on the increase, and that several routes require either side-wheel or screw boats each season.

A wrong impression had got abroad regarding the Canadian locks at the "Soo" as it had been generally given out that there was a foul bottom to its approaches, although one of the best masters then in the employ of Pickands, Mather & Co., told me that when there was any sign of delay at the American locks he sheered over to the Canadian side where he always found everything done to facilitate his locking through. It is now acknowledged that the Canadian channel had got a reputation of being somewhat unsafe and that there had not been dredging to a sufficient depth, but such a notion must now be dispelled, for during the whole time the American locks were closed during the recent blockade there was not an accident of any kind, and a vessel passed down drawing deeper draft than ever went down the river before, the steamer Curry locking through drawing eighteen feet and two inches. On the opening of the American locks

there was a large fleet of boats waiting and lockages were made as follows: Friday 81, Saturday 63, Sunday 70, Monday 77, Tuesday 75, Wednesday, one-half day, 30. The net tonnage exceeded 600,000, making a total of 396 vessels in 5½ days.

The American Ship Building Co. was formed March 16, 1899, under the laws of New Jersey, and took over the shipbuilding and drydock plants of eight cities, including the Detroit Drydock Co. With an authorized capital of \$30,000,000 only \$15,000,000 of both kinds of stock have been issued, \$7,600,000 of this being common, and the other 7 per cent. preferred, non-commulative stock. No dividend has been paid on the common, but in addition to paying regular quarterly dividends on the preferred, a surplus of \$1,742,303 had accumulated at the time of the last annual statement, and rumor now says the surplus has increased to \$3,000,000. If this surplus is used for the common stock it will mean a dividend of about 40 per cent. It may be divided among the common and preferred, and a large part may be used for betterments. The company, however, is in splendid shape, and has no funded debt except a purchase money mortgage for \$150,000 on the Buffalo plant. The fiscal year ends June 30, when, it is expected, something will be done with the surplus, and Buffalo, Cleveland and Chicago capitalists are picking up all the stock offered on the market.

BUFFALO.

The Lord's Day Alliance has succeeded at last in shutting Port Colborne out of the Sunday boat from Buffalo. The authorities have been instructed to refuse Canadian clearance to excursion boats on Sundays.

John G. Bullan and Capt. O'Hagen, of this city, have purchased the steamer Nebraska from Samuel Neff & Sons, of Milwaukee, the reported price was \$18,000. The steamer will be rebuilt into a lumber carrier at Chicago.

The last of the Dakota elevator tower has been removed from the Main street slip, and that waterway is now clear for the passage of boats. The obstruction has been a great annoyance to vessels desiring either to pass through or to wind in the slip, and the slow work of removal has been watched with growing impatience by marine men.

Repairs on the steamer Wilkesbarre will not be completed before July 5. The big liner is more seriously damaged from her stranding on Caribou Island than was at first supposed. Fifty plates have been taken off and all her floors for twenty feet back from the bow must be replaced. There is also some heavy damage in the after part of the hull.

The launching of the barge Alexander Maitland, built for the Franklin Transportation Co., which was to have taken place last Saturday, has been postponed, as the Wilkesbarre occupies the drydock, into which the boat was to have been launched. The barge will therefore be fully completed on the stocks and will be ready for loading cargo when she is put in the water.

The Lake Erie Dredging Co. is removing the bowlders from the channel of the Erie basin, preparatory for a survey to govern the \$50,000 dredging contract to be let by the state. The removal of these obstructions has long been urged by vessel owners, because of repeated accidents to shipping. In this agitation the Western Transit has taken a leading position, because of its heavy losses.

J. C. Gilchrist, the Cleveland vessel owner, has secured the controlling interest in the Buffalo Ship Chandlery and Supply Co., of which Capt. Hiram H. Smith has been for eight years the manager. The company will be reorganized and other Cleveland vesselmen admitted as stockholders. Mr. Gilchrist is also largely interested in the new Empire Ship Building Co., lately organized to take over the business of Bateman, McDougall & Palmer.

For the last couple of years a good deal has been said around the lakes of a movement that was on foot to form a dredging pool. Several meetings were held, the aim of which was to carry this plan into execution. One hindrance after another arose to prevent the consummation of the deal. It is now learned that this plan is held in abeyance if it has not been abandoned entirely for this year. The lakes will afford a great deal of work for the dredging contractors from now to the end of the year, and most of them are too busy to talk combination. Whatever there was in the report at first has no force now, and nothing will be heard of the movement at least until next winter, when quieter times have succeeded the present rush.

William D. Bennet, a scoper, is suing William J. Connors and the Great Northern Elevator Co. for \$2,000 damages for personal injuries. While he was unloading grain from a vessel at the Great Northern elevator on May 26, 1898, a tackle block attached to a steam shovel broke and struck his right leg, breaking it. He holds the defendants liable as his employers. Mr. Connors has a novel defense. He alleges that Bennet was in the employ of local No. 51, International Longshoremen's Union. In proof of this he asserts that he had a contract with the Lake Carriers' Association to unload grain for \$1.90 for 1,000 bushels, and another contract with local No. 51 to unload for \$1.85 for 1,000 bushels. He alleges it was the union, and not Mr. Connors or the Great Northern that set Bennet and the other scopers at work. The defendant's attorney moved for a non-suit on several grounds. Judge Emery granted it on the ground that the evidence failed to show the defendants were negligent.

DULUTH-SUPERIOR.

Ore, as well as lumber shipments, from Ashland, are expected to show up greater this season than ever before. The docks are being worked day and night.

The first work under water in the search for bodies of the late crew of the Wilson, commenced on Tuesday, but none were located. The search will be resumed during favorable weather.

United States marshals in the district of western Wisconsin libeled the Reddington at Superior on Saturday last. Rudolph Wilkie, who was injured a year ago while at work on the boat, brought the action. G. A. Tomlinson is the Duluth representative of the boat and furnished a bond of \$10,000 to get her released.

Coal supplies at the head of the lakes are reaching a very low point, and inasmuch as the most speedy settlement of the great strike now considered possible would be no sooner than July 20, the fact stares them in the face that it will be utterly impossible, under the most favoring circumstances, to bring in more than half the usual quantity of coal during the season of navigation. Relief is looked for from the bituminous coal fields of Illinois.

The steamer Hadley, having been run ashore after her collision with the whaleback steamer Thomas Wilson, has been successfully floated and discharged the remainder of her coal cargo at the docks of the Pioneer Coal Co. She will be drydocked and repaired, but whether the repairs are to be temporary or final will rest with the owners and underwriters. Great credit is due Capt. Joseph Kidd for the well-advised and skillfully executed work in floating the Hadley and placing her ready for drydock.

It is said that careless vesselmen are to be given severe handling by the United States officials soon, unless there is more obedience to the rules requiring the blowing of whistles in passing. Vessel inspectors have given considerable time to this point of late and have notified the customs officers that violations are flagrant. The officials state that big fines are awaiting certain masters who are thoughtless in this regard. It is the object of officials to get boat captains trained to the obedience of the rules so that lake disasters, like the one in which the Wilson was sunk, may not occur again.

Investigation of the eighteen licensed officers, members of the local L. T. P. A., will begin before the Marine Inspectors, in the offices in the Federal building on Wednesday morning. All tugmen against whom charges have been made have been summoned to appear before Inspectors Monaghan and Chalk, to explain their actions in connection with the big strike, which is claimed has resulted in a great hindrance to lake shipping interests. The novice, however, might inquire how a license could be affected when it was not in use. The local inspectors of steamboats want p'raps to become peacemakers, or strike arbitrators, but they are without authority to settle strikes for any one side.

Exploration of the iron ranges is progressing with much vigor this spring, according to Duluth men interested in mining property there. The most extensive work is being done on the Mesaba, particularly the western end. "There seems to be a sort of boom on the western Mesaba," remarked an old range explorer, who had just come in from his work. "Hundreds of explorers have gone into the territory, and most of them seem to have plenty to do. In all my several years experience over there, I never knew the outlook to be so encouraging as it is at present. The Vermillion also is particularly encouraging just now. Explorations are being conducted to a wide extent there, much more, in fact, this year than last, but the increase has not been of such proportions as on the Mesaba. New drills are going down right along. As near as I can figure it out, more than a hundred are working on the entire Mesaba range just now—many more than at this time last year. The increase is particularly noticeable on the western end. Both ranges are gradually extending westward, and in a short while a vast territory of unexplored land will be opened up."

TOPOGRAPHIC MAPPING OF OHIO.

The topographic survey of Ohio to be conducted by the United States Geological Survey in co-operation with the State of Ohio, under an appropriation by its legislature, has been started, and a number of parties are already in the field.

Under the charge of topographer Robert D. Cummin, work is being actively pushed in the vicinity of Cleveland and along the shore of Lake Erie to the west, covering parts of Cuyahoga, Lorain, and Medina counties, the results of which will be embodied in a map sheet representing the Berea quadrangle. An interesting topographic feature of this map will be its representation of the old lake terraces found in this region.

The Westerville quadrangle including parts of Delaware, Licking, and Franklin counties northeast of Columbus, is being surveyed under the charge of Mr. W. H. Griffin, topographer; when completed this map will be combined with the maps of three other quadrangles around Columbus, and the whole printed as a special map of Columbus and vicinity. The mapping this summer will be extended into the coal and oil districts along the Ohio river from Steubenville to Parkersburg and eastward to the vicinity of Carrollton, Cambridge and Caldwell, the field work being in charge of Messrs. Griswold, Cooke, Manning, Griffin and Morrill.

During the season primary triangulation will be extended over most of the coal districts between Cadiz and Ironton, under Messrs. S. S. Gannett, geographer, and G. T. Hawkins, topographer.

CHICAGO.

In placing the steamer Easton on the Chicago-Holland run, the Graham & Morton Line abandons its Milwaukee-St. Joseph service.

Saturday last was the busiest of this season in the lumber trade of Chicago. Twenty vessels with lumber products from Lake Superior ports reached their destination and all the tugs of the independent fleet had more business than they could handle.

According to Capt. Williams, of the steamer Tuscarora, the obstruction which inflicted serious damage upon his vessel was encountered on the regular course from Sheboygan to Manitowoc, and at a point where the chart indicates a depth of ninety feet of water.

Capt. Joseph Lamoreaux says that the tug H. E. Burke, burned at Muskegon, Mich., last winter, is being rebuilt at Manitowoc, and will be here shortly after July 1 to engage in general towing. Capt. Peter Barry owns a half interest in the Burke with Lamoreaux.

Capt. Jack Dalton, business manager of the Chicago Licensed Tugmen's Protective Association, announced that he has chartered the tugs Wheeler of Charlevoix, Mich., and Canfield of Manistee, Mich. Both boats will be brought here and operated at South Chicago.

An examination of the steamer Tuscarora, which was placed in drydock on Tuesday for survey and repairs, as the result of stranding at Manitowoc, shows that forty-eight plates will have to be removed. It is estimated that \$15,000 repairs will be required to make the steamer ready for service again.

The tug Cora A. Sheldon has arrived at Calumet, with a scow bearing the new, Pintsch gas lights which are to be placed on the breakwater there by the government. These gas lights burn day and night and require attention but once in two weeks. The government will place two of them on the breakwater.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau for the week ending June 25: Prevailing wind direction for the week N.W.; highest velocity 43 miles from the S. on the 25th; mean temperature for the week, 61°; highest temperature 81° on the 18th; lowest 48° on the 21st.

According to the plans of the Pere Marquette Railroad, Milwaukee will be the principal distributing point for the northwest in handling the Michigan peach crop next fall. The fruit will be taken there by the steamboat load from the east shore, and will be shipped in refrigerator cars. Heretofore nearly all of this business has been handled through Chicago.

The work of removing the north pier of Dearborn street bridge has begun, and the bridge is temporarily closed to traffic. The pier was directly in the way of steamers making the sharp turn at State street, and it had been struck a number of times since navigation opened. Its removal was necessary, as it had been so badly battered that it promised to fall into the river.

While leaving the Wabash elevator in the south branch on Tuesday, the Rutland liner W. J. Averell picked up a log in her wheel, damaging her stern bearings so that her engines could not be used. While being towed down the river the steamer stuck on LaSalle street tunnel, but was released after nearly an hour's work. After the Averell had been released from the tunnel the Arthur Orr, bound down the river with a general cargo went hard aground on the same obstruction.

The Graham & Morton Line brought over the tug Andy from St. Joseph, Mich. President Graham says the boat is to be devoted to his own work, and he has not yet decided whether she will be used for general towing. She is here to stay for the season, he declared, and will comply with all the requirements of the tugmen's union. Capt. A. Johnson, formerly in the trust's tug J. C. Evans, will have charge of the Andy. H. J. Howard will very likely handle the Andy if it is decided to put her in for general towing.

The summer schedule of the Goodrich Line has about started and the Virginia, Capt. Henry Stines, is on her route. The whaleback Christopher Columbus is also ready for service and the Atlantic has made the first run on her regular summer schedule. She will go north as far as Escanaba and Gladstone every Sunday hereafter. On Tuesday night the steamer Georgia leaves Chicago for Sturgeon Bay and Cheboygan. She will begin her regular summer runs to Green Bay on Wednesday, and the first of the summer runs to Mackinac Island on July 5.

At the commencement of the hearing of the charges against the licensed tugmen at this port who are accused of conspiring to hinder commerce the men insisted on separate trials and proof of the charges against each man separately. They will be defended by attorneys engaged by the Licensed Tugmen's Protective Association. Mr. Thomas Newman, president of the Great Lakes Towing Co., and Frank Masten, Esq., of the law firm of Goulder, Houlding and Masten, Cleveland, are here prosecuting the charges for the tug syndicate. The investigation of Engineer Michael Burns was concluded before the local steamboat inspectors, and the case taken under advisement. Burns was charged with having deserted his post on the tug Rita McDonald, and his defense was that he left the boat with the full consent of Capt. Crawford, who was in charge. The latter testified to the contrary. It is believed that the inspectors will attempt to revoke or cancel Burns' license.

Capt. M. Fitzgerald, whose license was revoked by gov-

ernment inspectors at Duluth as a result of his vessel, the George C. Hadley, colliding with the whaleback steamer Thomas Wilson, off Duluth harbor recently, will appeal to Supervising Inspector Sloane at St. Paul, for reversal of the Duluth verdict. If the supervising inspector upholds the Duluth decision appeal may be made to the Secretary of the Treasury. Papers in the appeal case are being prepared by Charles E. Kremer, Esq., of this port. It is the belief in some circles here that a suspension of license would have more fairly met the case instead of a total cancellation.

Attorney Joel W. Stevens, who is representing the Licensed Tugmen's Protective Association in the investigation of its members before the Local Board of Steamboat Inspectors, played a trump card on Wednesday when he asked that attorneys for the trust be not allowed to cross-examine the tugmen. His contention is that the inspectors alone have the right to question the men regarding their alleged misconduct. Attorney Frank Masten, for the Great Lakes Towing Co., asked for a continuance of the cases until Monday, and in the meantime will endeavor to secure permission from Washington to prosecute the case for his clients. The indications are that the investigation will continue for some time.

The independent tugs operating in the Chicago river have a double crew system on all the boats, each shift will work twelve hours. There are seven tugs doing the general towing in the harbor and this will add as many new crews, or twenty-eight men, to the working force of both unions now on a strike. It was figured by members of the organizations that this plan will give employment to nearly all the men and will help them to stand firm against a settlement with the Great Lakes Towing Co., unless the company recognizes the demands of their union. It is also stated that the pay of the men will remain the same as on the old basis. This is equal to doubling the cost of operating so far as labor is concerned.

Telegrams received on Wednesday from Norwich, Ct., announced the death of William M. Olcott, well known among pioneers of Chicago through his ventures in the shipbuilding industry while the city was yet a lake shore hamlet. Mr. Olcott was born in Utica, N. Y., in 1839, and in his early days came west in a prairie schooner. Soon after his arrival he foresaw the advantages Chicago offered as a lake port for the western states, and at once embarked in the shipbuilding business. Many of his boats, built in the early days, were counted among the fast clippers of the lakes. While the pine timber was still standing on the site of the new postoffice Mr. Olcott cut spars and masts for his vessels. From his shipbuilding interests Mr. Olcott became wealthy, and at the time of his death he was counted worth a considerable fortune.

CLEVELAND.

Harvey L. Brown, Esq., secretary of the Lake Carriers' Association, visited this port on Tuesday.

The steamer North Land called here on Wednesday en route to Chicago, her new boilers worked well and she was making schedule time.

Mr. W. A. Hawgood has been away this week on the maiden trip of the large steel cargo steamer J. M. Jenks, Capt. Ahlstrom, recently completed at the Lorain yards of the American Ship Building Co. for this firm.

At a recent meeting of local 312, of the I. L. A., Thomas Murray and John T. Walsh were elected delegates to attend the annual convention of the I. L. A. at Chicago in July. Each local in Cleveland is entitled to two delegates.

The Cleveland City Forge and Iron Co. have the contract to make the forgings for the new steamship building by the Delaware river Iron Ship Building and Engine Co., Chester, Pa., for the Ocean Steamship Co., (Savannah Line).

The announcement is made by W. F. Herman, the general passenger agent of the C. & B. Co., that the line will run a special excursion to Buffalo on July 3, and that in addition the City of Buffalo will give a lake ride out of this port between the hours of 2 and 5 p. m.

The Hawgood Line steel steamer Bransford, Capt. Jas. Owen, ran into the west pier at Ashtabula on Monday, and caused an estimated damage of \$2,000. The Bransford was drawing seventeen feet and had a tug but sheered badly on account of the current and strong westerly wind.

A start was made this week toward organizing the marine divers of Cleveland, their tenders and helpers. Detroit was the first port to have an organization of this sort, and then followed Buffalo, Chicago and Duluth. There are about twenty men engaged more or less in this class of work at this port.

A well known master and pilot tells me this week that the fight, on all season between the tug trust and the licensed officers will eventually simmer down to the Pittsburgh Steamship Co. absorbing the Great Lakes Towing Co. and taking over the best of the fleet of tugs, the balance can then come in for the general pickings.

The Detroit & Cleveland Navigation Co. has announced that the double daily service between Cleveland and Detroit will be resumed July 1. The expectations earlier were that this service would be resumed about the middle of June, but the continued cold weather delayed the excursion business and the officers of the company awaited a more auspicious time.

An officer of the Lake Carriers' Association has been in-

formed that a favorable report from the committee has been made to the lower house at Washington, on the bill to pension members of life-saving crews. The association has done all in its power to secure that legislation to improve the efficiency of the life-saving service on the Great Lakes.

The Cleveland Pneumatic Tool Co., have purchased a tract of land on Hawthorne and Second avenues, and will at once begin the erection of modern factory buildings. They have outgrown their present shop space, and are unable to keep up with their orders. They will employ about 150 men in their new plant, and electrical power will be used in driving the machinery.

The steel steamer Capt. Thomas Wilson, built by the Jenks Ship Building Co., Port Huron, for the Wilson Transit Co., is credited with making seventeen miles per hour and a mean speed of sixteen miles per hour on her last trip on Lake Superior. The Jenks Ship Building Co. also built the engines and boilers of the Wilson and she is giving the greatest possible satisfaction to her owners.

Although the matter has not been settled the members of the local lodge of the Licensed Tugmen's Association, against whom charges of conspiring to hinder commerce have been preferred by the officials of the tug trust, will probably be called before the Local Inspectors of Steamboats early next week. There is no change in the strike, but the officials of the company expect to have more boats in operation before the end of the week.

Local 312, known as the freight handlers arm of the I. L. A., of Cleveland, has announced that on Saturday it will give its first annual picnic at Giessen's garden. The officers of the local notified the agents of the various lines doing business out of Cleveland, and asked them if it would be possible to have no line boats in here on that day. The arrangements have been made for a rousing time among the freight handlers at this, the first outing, of the new organization.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, for the week ending June 25th. Prevailing wind direction during the week, W.; highest velocity 46 miles, from the west on the 25th; mean temperature for the week 60°; highest temperature 72° on the 20th; lowest, 48° on the 23rd. Sunrise and sunset data computed for local time, June 28th sun rises, 4:25, sets 7:40; July 1st sun rises, 4:27, sets, 7:39; July 4th sun rises, 4:29 sets 7:38.

Colonel O. H. Ernst, Corps of Engineers, U. S. A., stationed at Chicago, the division engineer under the War Department, is making a tour of inspection of all of the districts on the chain of lakes. He reached Toledo on Tuesday morning, and came to Cleveland on Wednesday, having stopped at the intervening ports. After a careful survey of the work being done here, he left for the ports in this district that lie to the east of Cleveland. He was accompanied by several assistant engineers, and was joined at Toledo by Major Dan C. Kingman, Corps of Engineers, U. S. A., of Cleveland, who is making the rounds of this district with him.

The handsome twin screw steel passenger steamer North-West, owned by the Northern Steamship Co., left here for Chicago and way ports on the first trip of the season on Monday last. The North-West was detained for a few days and placed in the hands of the American Ship Building Co. for work to be done in connection with her new outfit of Scotch type boilers, in place of the Belleville tubulous boilers which were taken out of her in Buffalo last winter. A visit of inspection was made by a number of Cleveland people on Saturday night and a very elegant luncheon was served on board. Mr. Jay D. Colver, agent of the Northern Steamship Co. at this port, convoyed the party of visitors and performed his round of pleasant courtesies in true Northern Steamship Co. style, which, of course, is the highest point attainable.

Judge Wing, of the United States District Court, dismissed the petition of the Licensed Tugmen's Protective Association for an order temporarily restraining the United States steamboat inspectors from hearing charges filed against a number of the local tugmen by the Great Lakes Towing Co. The tug company filed charges in which they complained that a number of the striking tugmen are hindering commerce, and for that alleged offense sought to have their licenses revoked. Before the inspectors had an opportunity to hear and pass upon the charges, the tugmen filed a petition asking to have the inspectors restrained from hearing the charges or revoking the licenses. Judge Wing, in his decision said, there had been no proof introduced to show the nature of the complaint against the tugmen, that it did not nor could not appear what the decision of the inspectors will be, and if the inspectors should decide improperly the matter before them, it does not appear what the action of the supervising inspector, in review of their action, would be. The court said it was an unheard of thing to ask one court to restrain another from proceeding for fear the latter will decide improperly. The injunction, therefore, was refused. It is argued that unless the men are at work and serving under their licenses, no charges should be brought against them and that even Judge Wing is simply Citizen Francis J. Wing when not holding court. If there can be claims laid against a license it must be when the holder thereof is engaged under its provisions, and not, for instance, when he is filling a pulpit acting as preacher or selling apples at a fruit stand.

THE BRITISH SHIPPING COMBINE.

The syndicating process, progress and manipulation of tonnage on the lines laid down by Mr. J. Pierpont Morgan, has apparently fired the blood, fevered, and aroused the national characteristics of obstinacy so highly developed among the British, and we now hear of a counter move being suggested, whereby an all-British ownership under the one house-flag might more favorably enter into competition with the Morganized merchant fleet in the North Atlantic trade.

In the event of the British combination being launched the Atlantic fleets would be apportioned about as follows:

GERMAN LINES.		
	Ships.	Tonnage.
Hamburg-American	256	668,000
N. German-Lloyd	120	556,178
Totals	376	1,224,178
ENGLISH COMBINATION.		
	Ships.	Tonnage.
Allan	30	140,761
Union-Castle	45	252,240
Cunard	18	125,490
Elder-Dempster	110	495,000
Totals	203	1,014,490
AMERICAN COMBINATION.		
	Ships.	Tonnage.
Leyland	46	293,015
White Star	26	250,000
Am. and Red Star	26	186,000
Dominion	8	73,749
Atlantic Transport	12	78,798
Totals	118	881,562

Sir Alfred Jones, chairman of the Elder-Dempster Co., who is supposed to be one of the most prominent movers in the new combine and who was recently knighted for his marked ability, is reported to be as interesting and aggressive as Mr. Morgan. He is now the head of the great Elder-Dempster Co., a line which carries the British flag to more quarters of the globe than any two others which sail under the Cross of St. George.

This company owns or controls the following lines: The Imperial Direct West Indian Mail Service, between London and the British West Indies; the Beaver Line, between Montreal and Liverpool; the Campagne Belge Maritime du Congo, to the Congo Coast of Africa; the Ocean Transport Co., between Quebec and London; the African Steamship Co., between Liverpool and Madeira, Grand Canary and the West and Southwest Coasts of Africa; the British and African Steam Navigation Co., between Liverpool and African ports, and the Elder-Dempster Shipping Co., Limited.

It is also stated that if it be true, as is now alleged, that Sir Alfred Jones is to be selected as the head of the new syndicate, then J. P. Morgan must needs look close to the efficient management of his own syndicate, lest the British combination wrest from it the greater share of profit.

On the other hand, judging from careful inquiries made by the Associated Press in the most influential quarters of London almost all of what has so far been printed is not only premature but inspired, and its purpose is to assist towards the realization of the shipping project, which is almost as visionary to-day as it was a month ago.

The circumstantiality with which these published reports have been adorned contrasts strangely with the statements of those without whose support such a combine would probably be futile. Even the cardinal point upon which these published stories were hung, namely, the utilization of Canadian subsidies, seems to be untrue.

One of the leading figures in the English business world whose name ranks with that of the Rothschilds, said: "Personally, I have not heard a word which makes me think this British project is other than a visionary one. If it materialized it would not have the support of the best financial circles of England. It is an entirely unnecessary step, and you may be sure that the leading men of England not only do not share in the press agitation over this matter, but deprecate any suggestion of a retort to what is so hysterically called American aggression."

"There is no necessity for such a combine so long as Americans are willing to pay 20 shillings on the pound. It is much better that England should understand that the statements published in the newspapers are quite unauthorized."

Notwithstanding the foregoing it is at present asserted that the British shipping combination, which intends to compete with the Morgan syndicate for the North Atlantic and Pacific freight and passenger business, is now practically consummated, according to the London correspondent of the Herald. Many reports of the formation of the new syndicate, more or less accurate. On good authority, however, the following details are given:

Sir Christopher Furness is to be the head of the new combination. It is to be capitalized at £20,000,000 (\$100,000,000). The Cunard company is included in the deal.

The British government has agreed largely to increase the present subsidies, while Canada promises at least £200,000 (\$1,000,000) yearly.

Six large passenger boats, capable of twenty-five knots an hour, are to be built, also a dozen sixteen-knot freighters, at an aggregate cost of £8,500,000 (\$42,500,000).

The entire capital is said to have been underwritten. One

well known capitalist who offered to take up a big block of stock was told that the whole amount had been subscribed.

In the minds of those who support the scheme the Atlantic aspect is not greater than the Pacific. The main idea is the utilization of the Canadian Pacific Railway as the chief link in a chain bringing Australia, India, China and Japan into nearer and more intimate touch with England and providing an all British route shorter than any at present available.

UNITED STATES SHIP BUILDING CO.

The Trust Co. of the Republic, of New York, announces that it is authorized to receive applications for \$9,000,000 of the first mortgage 30 years 5 per cent. Sinking Fund Gold Bonds of the United States Ship Building Co., at 97½. Subscription books will be opened on June 18, and remain open until 4 p. m. June 19. The bonds are part of an authorized issue of \$16,000,000, of which \$5,500,000 are withdrawn from public issue to provide cash working capital for the company, and \$1,500,000 are reserved in the treasury. The bonds are a first mortgage upon the following plants acquired by the company, namely: The Union Iron Works, of San Francisco, Cal.; The Bath Iron Works, Ltd., and the Hyde Windlass Co., Bath, Me.; the Crescent Ship Yard, and the Samuel I. Moore Sons Co., Elizabethport, N. J.; The Eastern Ship Building Co., New London, Ct.; The Harlan & Hollingsworth Co., Wilmington, Del., and the Canada Manufacturing Co., Carteret, N. J. These plants have been appraised as going concerns at more than \$20,000,000, and in addition the company will have a working capital of more than \$5,000,000. The constituent companies have on hand contracts for work amounting to more than \$36,000,000, on which the profits are estimated at over \$5,000,000, or more than sufficient to pay interest on the bonds and sinking fund for five years. The plants are earning \$2,225,000 per annum on the contracts now on hand. The fixed charges on the total issue of bonds are \$800,000, and the sinking fund requirement is \$200,000, making total fixed charges of \$1,000,000, and leaving a balance of \$1,225,000. Dividends at the rate of 6 per cent. on the preferred stock call for \$600,000, leaving \$525,000 for dividends on the common shares, betterments and repairs. The board of directors of the company consists of the presidents of the constituent companies, the president of the Trust Co. of the Republic, and John J. McCook, of Alexander & Green, counsel for the company. The bonds are to be paid for as follows: 25 per cent. on application; 25 per cent. on allotment; 25 per cent. July 10, and the remaining 22½ per cent. on July 24.

LAKE SUPERIOR IRON ORES.

The United States geological survey reports that Michigan, which has been the first iron producing state since 1881, is now second, having been passed by Minnesota. The greater part of the iron ore in the United States, however, continues to come from the Lake Superior region, which produced its maximum output of 21,445,903 long tons in 1901, being 74 per cent. of the total quantity reported and an increase of 4 per cent. over the total for 1900. The Marquette range, in Michigan, from which ore was first taken in 1856, has contributed up to date, 62,847,473 long tons. Most of this ore is shipped from Marquette and Escanaba.

The Menominee, in Michigan and Wisconsin, was the second range to be opened in 1877, and it has contributed to date 37,621,428 long tons, the greater portion being shipped from Escanaba. The Gogebic range, in Michigan and Wisconsin, and the Vermillion range in Minnesota, began shipping in 1884, the Gogebic range having shipped to date 34,154,790 long tons from the ports of Ashland and Escanaba, and the Vermillion range having shipped to date 16,977,243 tons from the port of Two Harbors. The Mesabi range, in Minnesota, began shipping in the year 1894, and has shipped thus far a total of 40,404,967 long tons, and has now apparently greater resources of ore than any of the older ranges.

NAVIGATOR OR MARINERS' GUIDE.

Mr. Harry Louderbough, proprietor of the New Jersey Paint Works, Jersey City, N. J., and manufacturer of the famous "New Jersey" brands of copper paint and anti-fouling composition, has just published "The Navigator; or Mariners' Guide," a book of 152 pages, bound in flexible covers. Within the covers is presented in attractive form a mass of original matter carefully compiled which cannot fail to be of great value to the mariner. Tables and statistics of every sort to facilitate the work of the navigator, concise and intelligent statements, illustrated by charts whenever possible, gives the official pilots' rules, fog signals, explanations of storm and code signals, instructions to be followed in case of collisions, and many other things of equal value. In addition, there are many flattering testimonials from users of Mr. Louderbough's paints and compositions, and the book, which is printed in colors, is one of the most ably edited and handsomely gotten out house publications seen in recent years.

Mr. Louderbough certainly deserves a great deal of credit for this publication, and he was ably assisted by Capt. Purssley, whose reputation is only more firmly established by his work in connection with "The Navigator; or Mariners' Guide."

"NEW THEORY ON COAL FORMATION."

DATUM, AS ADDITIONAL EVIDENCE IN CONFIRMATION.

A friend in the far northwest, who has paid considerable attention to the study of geology, says: "I will send you some datum which must largely aid in confirming the theory which you promulgated, i. e., of the coal formation having covered the entire earth, prior to erosion."

"Almost the entire northern coast of Alaska, from Bering Strait to Point Barrow, is striped with seams of semi-bituminous coal, and these veins extend inland, no man knows how far. Upon the beach live, the year round, a few Eskimo families, with two wolves ever at the door, famine and cold."

"Yet in the very ground under their huts, in the cliffs on which they precariously snare sea fowl for a scant refuge from starvation, lies wealth which cannot be estimated, and fuel enough to heat the whole world for untold generations. Enormous supplies of coal lie almost upon the surface—no man has yet estimated the quantity."

"As you sail from Cape Lisburne to Cape Beaufort, you may see miles of cliff in which the dark bands of it slant ribbon-like from beach to summit."

"When the brief summer thaws the ice the coal falls out of these veins in masses that lie in the icy surf, blocks containing tons of fuel each."

There are places where a ship's crew can actually pick up a cargo of good coal from the beach and the surf at the base of the cliffs."

"A blast set in these veins sends many tons of it rumbling down to the water, and from the summit of the headland you may see the surface croppings stretching miles inward in the form of parallel ridges. In them the brown ground squirrels, which the Eskimo trap for fur and food, dig their burrows and throw up black heaps of crumbling coal at the doors. W. Packard says, 'probably the thickest single vein of coal in the world is found there.'"

"Such a vein is considered a good one where it is eight feet thick; this one is eight times that thickness. If you paddle along the beach a little north of Cape Beaufort you may look over the side of the canoe in the shallow water and see the dark band running in from the sea fully sixty feet in thickness."

"How far inland it may extend no man may know; certain it is that far back in the hills a stream cuts it and runs through black coal cliffs over a pebbly bed of coal. Its depth, too, is unknown, but it, and smaller ones are supposed to dip with the sandstone and conglomerate far beneath the inland hills; they certainly reappear several hundred miles to the south, on the shores of Kotzebue Sound. The few Eskimo who have explored the inland rivers in their hunting expeditions tell of cliffs through which the water breaks that are similarly seamed with the 'black stones' which the white men covet. The coal is there, and its presence on the coast has been the salvation of more than one hardy whaling crew nipped in the Arctic ice and obliged otherwise to spend the long, frozen half-year night without fuel."

"It seems strange, but why not? Already the miner is camped upon its edges and the prospector is tramping towards its frozen region from many directions. The vast impulse which the discoveries of rich gold bearing territory in Northern Alaska has given to the exploration and working of this region, the settlement of the region beneath the Arctic Circle now rapidly goes on, and the great demand there for fuel for domestic purposes and for mining is turning the eyes of the shrewd pioneers of the world's industries toward the all but unknown Arctic coal fields, and their development is already vaguely begun."

"Ship loads of this coal, blasted from the face of the cliffs or picked up on the berg-battered beaches, already reach Nome, Port Clarence and other Arctic coast towns where its need is great. The quality more nearly resembles canal coal. The coal lies in countless millions of tons, locked beneath the Arctic ice, but the tribes freeze over this storehouse of warmth, and only the white man has the key that unlocks the door to the magic of its use."

"I will submit the following proposition: Is the region of almost perpetual winter, the terrible frozen north which explorers have died in vain attempts to penetrate, the repository whence the world is to draw its ultimate supply of fuel?"

J. R. HECKMAN,

Conner, Pa., June 20, 1902.

LAUNCH OF THE STEAMER THOMAS ADAMS.

The steel cargo steamer Thomas Adams, built to the order of Detroit capitalists, was successfully launched from the yards of the Craig Ship Building Co., Toledo, O., on Thursday last.

The Adams, known as No. 89 by her builders, has the distinction of being the largest steel boat ever built at Toledo, the ways which she has just vacated will be occupied by another keel of similar dimensions.

When ready for service, Capt. D. Nicholson will take charge of the new craft.

The Adams was built for the Adams Transportation Co., which is composed of Detroit and Toledo capitalists, on what is technically known as the channel system. Her dimensions are as follows: Length, 385 feet; beam, 50 feet; molded depth, 28 feet, with a five-foot water bottom.

Her engine will be of the triple-expansion type, 21x34x57 and 40-inch stroke. She will have two Scotch boilers 14 feet in diameter by 12 feet, built for a working pressure of 180 pounds of steam, which it is calculated will drive her at a speed of 12 miles an hour. She will leave the yards about July 15.

THE COMMERCIAL OUTLOOK OF SOUTH AFRICA.

The expected increase in the exports to Africa has already begun. The exports from the United States to Africa in April, the latest month for which the details of our exports have yet been received by the Treasury Bureau of Statistics, were greater than those to all South America, and were more than 50 per cent. greater than those of April in the preceding year. For the ten months ending with April, 1902, they amounted to \$28,956,179, against \$22,070,133 in the corresponding ten months of the fiscal year, 1901, and \$15,858,286 in the corresponding months of 1900. The chief increase of course is to British Africa, which takes about 85 per cent. of our exports to Africa. To British Africa alone our exports during the month of April, 1902 were \$2,763,833, against \$1,817,101 in April, 1901; and for the ten months ending with April, 1902, were \$24,708,612, against \$18,437,315 in ten months of 1901, and \$13,168,062 in ten months of 1900.

The prospective growth in the commerce of Africa and the probable increase in its consuming power with the return to peace and commercial activity, are discussed in a statement furnished to the British South African Export Gazette by a leading Anglo-African merchant, who had recently returned from a tour to South Africa, a copy of which has just reached the Treasury Bureau of Statistics. In this discussion the British merchant in question says:

"With regard to the future of trade, with the advent of peace, there will undoubtedly be a great boom all through the country. A lull consequent on the removal of part of the military forces and the refugees may perhaps affect the trade of Cape Town, which is, and always will remain, more or less local, and concerned with the western districts of Cape Colony; but no such effect will be felt elsewhere, for it will be necessary for some considerable time to keep a large military force in the country, and this will as a consequence involve a continuance of a considerable amount of military expenditure. Large camps will be set up at certain points. I have no doubt as to the certainty of the boom which will supervene after the war, but my only misgiving is that, with everyone rushing in to secure a share, it will be overdone, and a reaction set in.

"As regards the Transvaal, and more particularly Johannesburg, no one with his eyes open can doubt of the great developments in mining and commerce which lie ahead. It is well known that, before the war, many mining properties were held back by those who foresaw what was coming and thought it better to wait until the trouble was over, rather than risk their chances under the then unfavorable economic and political conditions.

"The immediate future of the Orange River Colony, although affording many hopeful indications, has, I think, several problems to contend with. The colony is a farming country in the main, and for some time to come will suffer from the depletion of population and the destruction of property, and as a consequence the loss of farming capital. Rhodesia forms no exception to the rest of the country, and has, in my opinion, a big future before it.

"The question as to which of the ports on the South and East African seaboard will secure the bulk of future South African trade is, I think, not difficult to answer. My previous remarks as to the local nature of the trade of Cape Town show that that port is out of the reckoning. The situation of East London and Port Elizabeth places both of those ports in a more advantageous position to cater for the interior trade than the metropolitan port. To Durban, however, I think will fall the bulk of at least the Transvaal trade, and that a very great future lies before it is unquestionable. It is the nearest of all the South African ports to the Rand, and owing to the high rents ruling in Johannesburg, merchants prefer to keep their stocks at the east in bond. By this course they save the interest on the disbursement of money for the duties, drawing their goods from bond only as they want them. Delagoa Bay may offer some rivalry on account of its slightly shorter distance and its through rate, and in the future will doubtless make further progress; but it will never be chosen voluntarily by merchant firms as a place of residence on account of the unhealthiness of the climate and because it is a foreign port. Johannesburg merchants likewise, I should imagine, will never use it, like Durban, as a place to store their stocks at. It will remain purely a forwarding port and a number of firms of forwarding agents may be established there. English merchants, I should judge, American merchants also, will always prefer an English port to a foreign, and especially a Portuguese port on account of the unforeseen Administration difficulties which are continually arising. If, as I think, Johannesburg merchants will continue to store their stocks at the ports in preference to removing them to Johannesburg, Durban will be the port chosen for the purpose, in which case its future is settled.

"Of course the reason for the preference of Delagoa Bay over Durban by the Germans is that their ships, coming down the east coast, touch first at the former port. It must also be remembered that the German through rate to Johannesburg via Delagoa Bay has enabled them to offer serious competition to British trade forwarded through Durban and other colonial ports; but this is a matter which our shipping companies will have to face by the institution of similar through rates via Durban. This, indeed, is the only way to do it. American as well as British vessels come round the coast from the west, and Durban is thus their proper objective rather than the

Portuguese port. Taking South Africa as a whole, the country will go ahead in coming years, and a big future lies before it. As to the immediate trade outlook, the impressions gathered from my visit are distinctly hopeful, tinged with the fear that it will be overdone.

SHIPPING SUBSIDIES IN ENGLAND AND GERMANY.

The Hamburger Nachrichten, Hamburg, June 11, publishes the following: "Herr Ballin, director-general of the Hamburg American line, in an after-dinner speech on the occasion of the trial trip of the new mail steamer Blucher, made some remarks deprecating shipping subsidies; and certain newspapers have represented Herr Ballin as having especially opposed German shipping subsidies, whereas he, as a matter of fact, referred to shipping subsidies in general. In reply to an inquiry, Herr Ballin has informed us that his speech was directed against the tendency which seemed to be threatening in England, to make too much of the system of shipping subsidies, and has authorized us to declare that his speech was addressed above all to The Times newspaper, which, he said, had recently carried its Germanophobia so far as to resort to grossly misleading statements as to the subsidies received by the two great German companies from the German Government in order to fan a movement in England for the granting of large subsidies to English shipping companies. The question has for some weeks past become acute in England, and it was Herr Ballin's object in the speech already mentioned, to draw attention to the extraordinary danger by which the shipping trade is thus threatened. The Hamburg-American line, it may be once more pointed out, shares in the mail subsidy which is paid by the German Government only in the case of two ships. These are the two Imperial mail steamers Hamburg Kiautschou, which, conjointly with the vessels of the Norddeutscher Lloyd company, ply on the East Asia line. The fact must again be emphasized that German shipping has not been brought to its present high level, nor is it fostered by Government bounties of any sort.

It competes with the other great shipping nations on the perfectly equal basis of its own strength. England is completely mistaken if she supposes that by a policy of subsidies she can improve her position as compared with Germany and America. A policy of bounties on the part of England capable of giving that country a really decided commercial advantage would simply have to be imitated by her leading competitors. The English shipping trade would then merely be forced into an unwanted and precarious channel without obtaining any advantage. These are the reasons why it is impossible to adopt too emphatic a tone in condemning any overrating of the subsidy system."

EASTERN FREIGHTS.

Messrs. Funch, Edye & Co., New York, report the condition of the eastern freight market as follows:

The only direction in which any activity has been shown in chartering for the present week has been in deals from the British provinces, but the rates accepted show a decline, in comparison with last rates paid. Some further fixtures have been made for timber, from the Gulf ports, but for this and next month's loading owners have been obliged to make concessions in order to secure charters. There is practically no demand whatever for tonnage, outside of timber and deal business, consequently the fixtures in other directions are extremely light. Two steamers have been closed from the Gulf for the next cotton season, at rates which would indicate that tonnage is likely to be obtained for the fall months on fairly reasonable terms, from a charterers point of view. We have no change to report in the coal situation, and business in this particular line is naturally restricted.

With the exception of some little activity in the River Plate and Brazil lumber trade at former rates, the market for sail tonnage remains quiet and to a more or less extent nominal.

Grain to Liverpool or London 3 cents, Glasgow 2 cents, Bristol, Hull, Leith 4 cents.

STATEMENT OF THE VISIBLE SUPPLY OF GRAIN.

As compiled by George F. Stone, Secretary Chicago Board of Trade Saturday, June 21, 1902.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo.....	995,000	409,000	297,000	66,000	162,000
Chicago.....	2,799,000	3,165,000	326,000	186,000	.....
Detroit.....	134,000	.....	1,000	9,000	.....
Duluth.....	4,982,000	67,000	.....	10,000	56,000
Port William, Ont..	1,318,000	.....	.....	.....	.....
Milwaukee.....	34,000	158,000	121,000	2,000	14,000
Port Arthur, Ont....	90,000	.....	.....	.....	.....
Toledo.....	33,000	247,000	102,000	17,000	.....
Toronto.....	8,000	.....	5,000	.....	2,000
On Canals.....	623,000	82,000	225,000	77,000	.....
On Lakes.....	504,000	259,000	324,000	30,000	.....
Grand Total.....	21,035,000	5,189,000	2,048,000	494,000	281,000
Corresponding Date, 1901.....	32,913,000	17,186,000	10,631,000	559,000	484,000
Increase for week.....	.....	470,000	.....	.....	.....
Decrease " ".....	2,535,000	.....	396,000	60,000	65,000

While the stock of grain at lake ports only is here given, the total shows the figure for the entire country except the Pacific Slope.

SHIPPING AND MARINE JUDICIAL DECISIONS.
(COLLABORATED ESPECIALLY FOR THE MARINE RECORD).

Injury to Stevedore—Liability of Ship—Crew Working for Another than the Ship.—A ship is not liable for injury to a stevedore in unloading the ship, through negligence of the winchmen, though they were members of the ship's crew, they at the time being under a special contract of hire, either for the consignee or the head stevedore. The *Turquoise*, 114 Fed. Rep. (U. S.) 402.

Adjustment Between Vessel and Cargo.—Where the cargo of a vessel has been sold by order of the court to which it was brought by salvors, in proceedings regularly instituted by the owners to recover possession, the proceeds of the sale may properly be taken as its value for the purpose of making adjustment between the several parties in interest, although the proceeding by the cargo owners was unwarranted, and the cargo was sold for less than its actual value. The *Eliza Lines*, 114 Fed. Rep. (U. S.) 307.

Practice—Consolidation of Causes.—Where several proceedings have been constituted in a district and a circuit court, growing out of a disaster at sea, against the ship and cargo to recover for salvage services by the cargo owner to obtain possession of the cargo, and also by the master to subject the cargo to the payment of freight and general average, it is within the power of the circuit court thus having acquired jurisdiction of the subject matter and the parties to consolidate the several suits, and determine and adjust the rights of all parties. The *Eliza Lines*, 114 Fed. Rep. (U. S.) 207.

Dead Freight.—Under a charter which required the ship to proceed to the port of loading "or as near as she can safely go," and required the charterer to furnish a full and complete cargo of ore, it was the duty of the latter to deliver the cargo at a place from which the ship could get away after being loaded, and he is liable for dead freight where the ship could not load a full cargo at the berth he assigned her, because of a bar in the harbor which she could not cross, and the master was not requested to stop for further loading after crossing the bar. *Carbon Slate Co. vs. Ennis*, 114 Fed. Rep. (U. S.) 260.

Shipping—Construction of Bill of Lading—Right to Discharge in Turn.—A bill of lading besides the general provision fixing the lay days for discharging, contained a clause providing that the vessel should have precedence in discharging over all vessels arriving or giving notice after her arrival, and should be compensated in demurrage for any violation of such provision. Held, that the provision for demurrage for a delay caused by a failure to discharge the vessel in her turn controlled the provision fixing the time allowed for lay days. *Evans vs. Blair*, 114 Fed. Rep. (U. S.) 616.

Admiralty—Action for Penalty Under Harter Act—Parties Entitled to Sue—Test Case.—An action cannot be maintained to recover the penalty for the violation of Act of Congress, February 13, 1893, known as the "Harter Act," requiring the owner, master, or agents of any vessel transporting merchandise from or between ports of the United States and foreign ports to issue to shippers bills of lading or shipping documents, by a party put forward by an organization of lumber exporters for the mere purpose of making a test case, and not himself having any interest in the lumber shipped, not even being in the lumber business, where it further appeared that the lumber shipped was properly delivered at the destination, and that no one was injured. The *Minnehaha*, 114 Fed. Rep. (U. S.) 672.

Privilege of Designating Dock.—There being no provision in the bill of lading on the subject, the consignee had, under the custom of most or all of the Atlantic ports, and in view of the particular kind of cargo, the privilege of determining at which of its docks the vessel should discharge, and her right to her turn was limited to such dock. This privilege, however, was not absolute; and whether the assigning her to a particular dock, where she was delayed awaiting her turn, while other vessels arriving after her were discharging at the consignee's other docks, rendered the consignee liable to demurrage, depended on whether such assignment was just and reasonable, and based on some reasonable necessity. *Evans vs. Blair*, 114 Fed. Rep. (U. S.) 616.

Master and Servant—Injuries to Servant.—Plaintiff's intestate was employed as a ship carpenter. While at work on a staging, assisting to place cant timber in position, one fell and struck the staging, and broke it, causing the intestate to fall and receive fatal injuries. To adjust the cant timbers, it was necessary to hoist and lower them by an engine and other appliances. While hoisting and lowering the cant timber in question, the men at the winch allowed all the rope to run off the winch; thus releasing the cant timber and permitting it to strike the staging. The winchmen worked pursuant to signals which were first given by defendant's foreman, and repeated to the men by a servant (a carpenter) selected by the foreman to do so. Held, that the servant employed to repeat the signals was not a fellow servant with plaintiff, but a vice-principal, rendering defendant liable for his mistake, if any, in repeating the signals. *Sroufe et al. vs. Moran Bros. Co.*, 68 Pac. Rep. (Wash.) 896.



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CLEVELAND, O., JUNE 26, 1902.

WHEN, by the aid of ship subsidies, we build a sufficient
ocean marine; when we have an isthmian canal by either
route proposed; we shall begin to realize that share of the
world's commerce which is ours by right. At present we
are practically only "marking time."

WITH the accident to the after section of the divided steel
steamer Minnewaska in taking the two sections lashed to-
gether down the St. Lawrence river, the building of large
steel steamers at lake shipyards for coast and ocean service
will probably be given its quietus, at least for a while. It
was while rounding Sparrowhawk's Point, a swift and
rather difficult part of the channel, where a sudden turn to
the south has to be made, that the Minnewaska got beyond
control of the tugs and began to drift on Tousaint's Island.
In spite of every effort made to keep her in the channel,
she stranded broadside, hard and fast, in a few feet of
water, one hundred yards from shore. As but the stern sec-
tion was struck the fore part was immediately cut loose
and taken to Iroquois. It likely will require a great effort
and considerable expense to float the stern section and make
all necessary repairs before the sections are joined together
again at Quebec. Furthermore, the detention is one of the
worst features in the casualty as it was figured that the
second steamer should dock immediately after the first one
had been completed.

A PROMINENT marine man of Detroit would insist upon
passenger steamers giving way to and keeping clear of
all cargo carrying boats, irrespective of whistle signals or
the laws governing the sailing and steering rules. This
radical expression of opinion voices the sentiment of those
not thoroughly learned and drilled in the "Rules of the
Road." The "White law," as in force on the lakes, is
founded on the international system compiled by the most
talented and experienced men in the world. There is no
position in which a vessel can be placed that the interna-
tional "Rules of the Road" does not apply to, and, therefore,
can be followed in their entirety. We are distinctly at
one with the Detroit authority when he states that too much
dependence is being placed on whistle signals, and we are
also strongly of the opinion that this evil is on the increase,
being engendered and fostered through vessels being in
port so frequently and whistling continuously for bridges,
tugs, etc. Given an occasional fog or misty weather and
whistles might be made to blow permanently from port
to port, in point of fact, such a measure not unfrequently
obtains already.

THE HINDRANCE TO COMMERCE QUESTION.

The local officers of the Steamboat Inspection Service at
the several prominent lake ports have charges filed be-
fore them against unemployed men who are the holders of
licenses as pilots, and, or, as engineers of harbor tugs within
their several districts.

The charges against these men, who are peacefully fol-
lowing the dictates of their own wishes, is that they are
hindering commerce by not being at work, or accepting
employment on certain terms offered by employers and re-
fused by the workmen or licensees.

Granting that almost every clause or section in the Re-
vised Statutes, relating to licensed officers, carries a penalty
of revocation of license with it, it does seem somewhat ar-
bitrary to lodge charges against men who are under no
moral, verbal, written, civil or legal agreement to work for
any particular person, firm or syndicate, nor do we believe
that such is the intent of the law, or, if such is the case,
the much talked of government by injunction or restraining
order, is full and free liberty in such a comparison.

The advocates of the hindrance to commerce view of the
tugmen's strike now existing on the lakes, quote very glibly
from Revised Statutes, Section 4449, which reads: "If
any licensed officer shall, to the hindrance of commerce,
wrongfully or unnecessarily refuse to serve in his official
capacity on any steamer, as authorized by the terms of his
certificate or license, * * * his license shall be revoked."
As we read this clause, the licensed officer is employed and
serving under his license in an official capacity on shipboard,
and, not that it is demanded that he shall so serve during a
period anterior to his specific agreement to accept and work
under proffered conditions, the licensee is supposed to be in
active service at the time he wrongfully refuses to serve
under the authority of his license, not at such times as he
is otherwise employed, or unemployed, on land, as, under
such conditions his or their licenses are not in question,
nor can they be made so by any stretch of legal verbosity
or assumption.

To more lucidly explain our views in this matter, we
take the case of a fully licensed pilot and master of forty
years standing, who has regularly renewed his license dur-
ing the past fifteen years, but all of which time has been
spent on shore, employed or unemployed as the case may be.
A vessel desirous of leaving port and not finding any other
master available at the moment, demands the services of
this shipmaster under the authority of Section 4449, Revised
Statutes, and so that he shall not be held guilty of the
offense of refusing to serve in his official capacity, "to the
hindrance of commerce" he must, willing or unwilling,
accept by virtue of, and on the strength of his license, the
employment forced upon him, or convict himself of incom-
petency, by pleading temporary or possibly permanent in-
capacity. Such, we opine, is a reverse reading of Section
4449.

The reading of Section 4450, Revised Statutes, seems
very clear on this point in stating that "the local boards of
inspectors shall investigate all acts of misconduct or in-
competency committed by any licensed officer while acting
under the authority of his license." At this point their
authority ceases, or should do, in so far as their dealings
with licenses are concerned.

In this connection it is advisable to bear in mind that
steamboat inspectors can not legally suspend or revoke an
officer's license beyond the time for which the license was
issued, and if a license expires previous to the conclusion of
an investigation the inspectors must refer the matter to the
United States District Attorney for prosecution, etc. The
law does not empower the local inspectors, for any cause,
to permanently disqualify a person from holding a license,
so that the word revocation of license would read clearer
as cancellation.

A SPECIFIC charge of misbehavior, negligence or unskill-
fulness, endangering life and willfully violating any pro-
visions of the steamboat laws is required to be made, ac-
cording to section 4450 Revised Statutes, as a cause for
temporary suspension or revocation of an officer's license.
It is further ruled that the inspector shall, when charges
have been duly filed against a licensed officer of steam ves-
sels, furnish the accused with a copy thereof, setting forth
specifically their character, and the section of the statutes
or the rules of the board that have been violated. The ac-
cused shall also be permitted to cross-examine witnesses.

THE ATLANTIC RECORD PASSAGE.

Record passages across the North Atlantic have been
chronicled for centuries and even before the age of steam
the greatest interest was evinced in the speedy passages of
eastern bound ships under canvas. In those days, a record
maker for one trip could not be heralded as holding the
"blue ribbon" nor could she carry a broom at the mast-
head for any length of time, as it was more than probable
that some other vessel or vessels might equal the previous
record making gallop across the Western Ocean, for of
course nearly everything depended upon obtaining a current
of favorable winds. The tests of speed and endurance
nearly a century ago might have been said to have rested
almost solely between British and American bottoms, with,
at a little later date, the advantages on the side of American
built ships, and, as a matter of history, the same condition
held sway in the foreign over-sea trade, more notably so,
perhaps, in the China tea trade.

The Aberdeen clippers gave us a close rub in sailing
qualities and seaworthy construction, but the vessels of the
United States, the memorable Yankee clippers, always gave
a good account of themselves in so far as constructive ability
and navigational features were concerned. Still, there was
as much earnest competition, and fair, square seamanlike
rivalry evidenced in the sailing age, as has since developed
under steam.

At the time of the Collins-Cunard steam rivalry the
Anglo-American competition for Atlantic honors changed
from steam to sail with all ultimate success in favor of the
British, and the United States dropping out of the race
with the loss of the Collins Line of subsidized steamers.
From that time up to quite a recent period the British have
held sway over the "pond" in cargo, mail and passenger car-
rying bottoms. It mattered little that the "blue ribbon"
changed from one boat to another, or from line to line, it
was British anyway, and for our part it was impossible in
the hey-day of the British ascendancy to cross the Atlantic
in record or speedy time in any other way than under the
British ensign.

The last few years has seen the German steamships tak-
ing precedence in point of construction, size and speed, and
to which might be added, as a consequence, navigational
skill and seamanlike ability. We have now reached the era
where even a fractional knot of speed in the hourly record
gains or loses the title of the "greyhound" of the Atlantic
ferry.

The German built steamer, Kaiser Wilhelm der Grosse,
first awakened the British to the possibility of competition
being entered into by their Teutonic brethren across the
North Sea, the performances of the Deutschland emphasized
the probability and the recent passage of the Kronprinz
Wilhelm takes away the last vestige of pretence which the
British might have doggedly held on to regarding their
ability to keep pace with the constantly improving steam-
ships built by Germany for their Atlantic service. By the
narrow margin of 0.02 of a mile the hourly speed record
for the Atlantic Ocean, held by the Hamburg-American liner
Deutschland, was broken by the Kronprinz Wilhelm, which
covered the distance of 3,095 miles from New York to
Plymouth in 5 days, 11 hours and 32 minutes, at an average
hourly speed of 23.53 miles. Her daily runs were 434, 550,
535, 534, 552 and 490 miles. This is the best eastward
record for speed thus far made across the Atlantic.

This great steamship was built last year, but not until the
present month did the Deutschland's position seem to be
jeopardized by the newer vessel. The same company which
owns the new record-maker has a still more powerful steam-
ship in process of construction, and it is probable that the
Germans will retain the championship of the seas for speed
and power several years at least. It may be that the Brit-
ish will never win back the proud place their country held
during a long period, and there is no sign that the American
companies fast coming to the front in Atlantic shipping
mean to try, just yet, for records in crossing the Atlantic
Ocean. It is probable, therefore, that when Americans wish
to cross the Atlantic under the Stars and Stripes in the
shortest possible time, the rivalry will be found to
have changed from the old time British sail and steam to
the modern German speed surprisers, as evidenced in such
ships as those mentioned in the foregoing.

THE late Capt. Thos. Wilson, who was a practical master
and pilot, also one of the most experienced men engaged
in lake transportation interests, stoutly upheld the neces-
sity for doubling, or paralleling the channels as far as pos-

sible throughout the connecting links of interlake navigation. These requirements are absolutely essential for the safety of general commerce and to insure the uninterrupted of interlake traffic. Blockades have occurred each season through the sinking of a vessel in a channel or fairway, and a repetition of such casualties are possible if not probable at any hour during the season of navigation. The recent closing of the American "Soo" canal is the latest warning in this direction, but which did not result so disastrously as it otherwise would have done if the Canadian locks and canal had not been available.

THE sundry civil bill as it will become a law will carry these additional items for improvements to navigation on the Great Lakes: Peshtigo reef light vessel, \$15,000; Crisp point, \$18,000; Point Pelee lightship, \$45,000, of which \$4,000 is available this year; Conneaut light-house on pier, \$8,400; Ashtabula light and fog signal, \$18,000. These items were carried on the sundry civil bill as Senate amendments.

LAUNCH OF THE HAROLD B. NYE.

The steel steamer Harold B. Nye, built to the order of Messrs. Hawgood & Co., Cleveland, was successfully launched from the Lorain yards of the American Ship Building Co., on Saturday last. The Nye is named after Mr. Nye, of the firm of Messrs. A. C. Saunders & Co., coal shippers, Cleveland, and Miss Margaret, his daughter, enjoyed the honor of christening the large cargo steamer, a ceremony which she gracefully performed with the utmost composure, and, as a matter of course, with the usual accessories.

The launching party from Cleveland was one of the largest that ever witnessed a launch at Lorain. Two special cars taken from the Toledo, Fremont & Norwalk electric road were utilized in conveying the party from Cleveland. Under the care of General Manager J. C. Wallace and Mr. Robert Wallace, the pioneer shipbuilder.

The general hull dimensions of the Nye are 400 feet keel, 50 feet beam and 28 feet molded depth, she is a sister ship to the Bransford and Jenks, recently completed by the same builders for Messrs. Hawgood & Co. She will be fitted with all modern improvements and appliances for the convenience and rapid handling of ships and cargoes. The engines are triple-expansion and boilers of the Scotch type.

Capt. Alva Keller, who was in the steamer Hiawatha last season and previously in command of the Fred Kelley, and J. S. Fay, of the Bradley fleet, will take charge of the Nye, and it is now expected that she will be ready for service in about thirty days. Capt. Keller, his relatives and friends, are largely interested in the ownership of the new craft, and intend to form a new shipping company with the Nye as the pioneer craft in the line.

COST OF AMERICAN BUILT VESSELS.

In his report to the Foreign Office on the trade and commerce of Philadelphia for 1901, Mr. Powell, the British Consul, says that the cost of building a steamship of the Minnehaha type in the United States is £369,360, while the same vessel would be built in Great Britain for £283,840. The American cost of the smaller Transatlantic cargo steamers is £145,800, while the British price ranges from £97,200 to £106,800. The Shipping World, London, says: "To this we may add some equally interesting figures in regard to the relative cost of warship building in this country and America. From the United States Naval Appropriation Bill we note in connection with the new ships which it is proposed to lay down, that for the battleships, which closely approximate in size those ordered recently in this country, having a displacement of 16,000 tons, the cost, excluding armor and armament, is put down at £842,000, and ready for sea £1,506,000. This is an exceptionally high price, because the hull and engines of the new British battleships, that is to say, excluding armor and armament, will cost the Admiralty about £560,000, and completed they are not likely to exceed £1,200,000. The armored cruisers of 14,500 tons will cost, complete for service, £1,343,000, whereas the vessels of the King Alfred class, of 14,200 tons, according to the Navy Estimates, are to cost in all £1,011,000. The hull and machinery of the American cruisers are put down as costing £932,000, which again is 20 per cent. higher than the contract work of corresponding vessels in this country."

R. S., Section 4450. The local board of inspectors shall investigate all acts of incompetency or misconduct committed by any licensed officer while acting under the authority of his license, and shall have power to summon before them any witnesses within their respective districts, and compel their attendance by a similar process as in the United States Circuit or District Courts; and after reasonable notice in writing, given to the alleged delinquent, of the time and place of such investigation, such witnesses shall be examined under oath, touching the performance of his duties by any such licensed officer; and if the board shall be satisfied that such licensed officer is incompetent, or has been guilty of misbehavior, negligence or unskillfulness, or has endangered life, or wilfully violated any provisions of this Title, they shall immediately suspend or revoke his license.

ISSUING LICENSES TO WOMEN.

(ADVICE TO LOCAL INSPECTORS.)

When Chas. J. Folger was Secretary of the Treasury he was requested to reach a decision relative to women holding pilot papers, and, Hon. Chas. J. was gallant enough to render the following pertinent and in every way sensible conclusion under date of February 2, 1884.

"A woman * * * seeks to be licensed as master of a steam vessel on the inland waters of the United States. I know of nothing imperative in the reason of things, in natural law, in public policy, or in good morals, why a woman, if she is skilled, honest, intelligent, hardy, and prudent enough, may not have command of a steam vessel, and navigate it, and manage and conduct the business carried on with it * * *"

Let the Local Inspectors, putting behind them all thought of her sex, without antagonism and without partiality, make diligent inquiry as to her character, carefully examine her and the proofs she offers, and if they are satisfied that her character warrant a belief that she can be safely entrusted with the duties and the responsibilities of a master of a steam vessel, let them grant her a license according to section 4439.

LAKE FREIGHTS.

There has been good dispatch with fair chartering at season rates on iron ore throughout the week, and brisk shipments. The ore receiving docks are being worked to the best possible advantage, though the indication is that tonnage is again beginning to pile on them.

Coal shipments at former rates have been brisk, but there now seems a disposition to hold back on bituminous, and of course there is no anthracite movement by lake.

The grain market is lifeless, 1¼ cents is quoted on wheat to Buffalo from the south branch Chicago river, and 1½ cents from South Chicago, with 1 cent on corn and the same rate for north branch loading.

Lumber chartering is slightly better, and the \$2.50 rate from Lake Superior seems to be maintained, although a number of the lumber carriers are laid up and others are switched into the ore trade. There is every indication that chartering will be more brisk next week.

VESSELS CLASSED.

Vessels classed and rated this week by the American Bureau of Shipping, New York, in the "Record of American and Foreign Shipping":

Screw "Berkeley," Screw "Atlantic," Screw "Valencia," Bark "Grace Deering," Schooner "Harry L. Fenner," Schooner "Gracie D. Buchannan," Tern "H. E. Thompson," Barge "Santiago," British Schooner "Glenrosa," British Tern "Unique," British Tern "Arthur M. Gibson," Bark "Onaway" and British Barkentine "Athena."

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Johnson, M, Crete	Schuster, R, Frontenac
Jones, John, Vulcan	Vannest, F-2, Carnegie
Johnson, Olaf, Athens	Van Ostrand, C, Alaska
Krueger, E, Livingston	Vizneau, Walter
Leach, Geo, Etruria	Vizneau, Fred
Lodwick, E E	White, Geo
Lomdry, Simon	White, J A
Mayer, Jno, Niagara	Wing, Geo.

F. B. DICKERSON, P. M.

FLOTSAM, JETSAM AND LAGAN.

The car ferry Pierre Marquette No. 16, which went on the beach at Ludington last December, and was thought at the time to be almost a complete wreck, has been rebuilt at a cost of \$70,000 and is again in service between Ludington and Milwaukee. Captain George L. Thompson, of Milwaukee, is again in command. Samuel Sylvester, of Port Huron, is chief engineer, and Ernest Heald, of Midland, is purser.

With all the talk of the settlement of the tug strike, neither party has changed position except that the Great Lakes Towing Co. has consented to pay practically the schedule demanded by the L. T. P. A. It, however, refuses to recognize the union. Such a proposition makes the fight one of life or death with the union. At the same time, the officials have stated their position boldly, flat-footed and for publication.

The old sidewheel steamer Metropolis, formerly of Detroit, now owned by a Toledo syndicate, was burned to the water's edge at the Ohio Central docks at Toledo Friday night. She was formerly on the Toledo-Monroe route, but for the last three years has been used only for occasional excursions. The cause of the fire is not known, and the amount of loss, fully covered by insurance, is uncertain—probably \$8,000.

F. A. Knapp, of the Knapp Tubular Steamship Co., is negotiating with the town council in reference to the matter of establishing the shipyard of the company at Brockville. He states that it is the object of the company to have a shipyard at a point east of Lake Erie to supply river boats. He is anxious that from \$40,000 to \$50,000 in stock be purchased by local people. It is the intention of the company to build at least ten boats at a cost of \$55,000 each during the winter season.

The Calvin Wrecking Co., of Kingston, Ont., have the contract for floating the Minnewaska. The price is said to be \$4,000 if the boat is righted within ten days and \$2,000 if it takes a longer time. The other half of the boat is at Iroquois. The builders are anxious to get the sections to the drydock at Quebec. The work of putting the sister ship Minnetonka together was completed a few days ago and the syndicate is being charged a hundred dollars a day for holding the dock for the Minnewaska which met with the mishap in the St. Lawrence river.

It is more than probable that a new life-saving station will be established at Lorain, O. Congressman Skiles is pushing the matter and asks that Lorain donate a suitable site for the station, which will be done. Supt. Kimball, of the life-saving service, says the application presented for Lorain is a very strong one. Since April 29, 1895, forty-two lives have been lost and eighty-two persons have been rescued from drowning, to say nothing of the loss of property. It is fair to presume that over half the lives could have been saved that have been imperiled in the time stated had a station been in operation here.

The steamer Orion, of the Collins Bay Rafting and Forwarding Co., has been libeled by the Tonawanda Barge Line. The vessel was seized at Port Huron and bonded in the sum of \$5,400. The action is the result of a collision in the St. Clair river May last. The steamer Charles A. Street was towing the schooners Lozen and Godfrey and the Orion was towing the Muskoka. In passing the two steamers became entangled and while in this condition the vessels in tow collided, resulting in damages to the Godfrey and loss through delay amounting to \$2,700, according to the libel filed.

The celebrated Cape Horn Pigeon case in which the governments of the United States and Russia have figured since 1893, is brought up once more through the arbitrator, Hon. M. T. M. C. Asser, adviser of the minister of foreign affairs for Holland, asking for further expert evidence before rendering a decision. Capt. George O. Baker, of this city, has been selected as the expert, and he sailed Saturday for Holland. During 1893 the Cape Horn Pigeon, a sailing vessel, was seized by a Russian government vessel in the Behring sea. The firm claim \$45,000 damages as the result of that seizure.

The placing of buoys between Prescott and Montreal has formerly been under the Department of Railroads and Canals, of the Canadian Government. This has recently been changed and is now cared for by the Department of Marine and Fisheries, and the territory extended to cover all Canadian waters between Kingston and Montreal. The newly equipped Canadian revenue cutter Scout is equipped with a derrick able to handle ten tons, and the gas buoys weigh but three and one-half tons. Many gas buoys will be placed, and the old spar buoys replaced with new ones. The Scout will also carry the supplies for all Canadian light-houses in the territory.

A Frenchman writes as follows to the Liverpool Daily Post: "I am in Liverpool since a month, and I saw many things the which I stupify. But of these this most amaze me. On your tramcars one writes: 'Passengers are requested not to board or leave the car whilst in motion.' 'Bord' I comprehend not. My friend say it is 'aborder' to go on ship, therefore one me demanded not to go on car and not go off whilst in motion. How can that be? I see thousand passengers since four weeks go on and off a car, but they all go whilst in motion. Shall one explicate how passengers whilst not in motion have power to go on and off a car?" The editor is unable to supply the desired information, frankly admitting that the problem does seem rather a difficult one.



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NOTICE TO MARINERS.

DOMINION OF CANADA.

GEORGIAN BAY—MEAFORD HARBOR—EAST PIER EXTENSION MARKED BY A LIGHT.—Crisps have been sunk at Meaford Harbor for a 300-foot extension northward of the east pier, now in course of construction, and a white lantern light is shown at night on a pole about 12 feet high near the north end of the crabs.

LAKE SUPERIOR—EAST END—COPPERMINE POINT—LIGHT ESTABLISHED.—A temporary light was established on the opening of navigation in 1901, by the Algoma Central Steamship Line, on the extremity of Coppermine Point, on the Canadian shore at the east end of Lake Superior.

The light is fixed white, shown from a lens lantern, elevated 45 feet above the water of the lake, which should be visible twelve miles from all points of approach. The illuminating apparatus is dioptric of the seventh order. The lantern stands on the top of an open-framed, square, pyramidal, wooden tower, standing upon the bluff at the northwest extremity of Coppermine Point. The tower is 12 feet high to the table on which the lantern stands, and is whitewashed.

There is a fishing station in the bay immediately to the northward of Coppermine Point, with a small wharf (Rousseau's) at which fishing tugs and coasting steamers call.

LAKE SUPERIOR—EAST SHORE—GARGANTUA HARBOR—PARTICULARS RESPECTING LIGHT-HOUSE AND HARBOR.—A survey of Gargantua Harbor, Lake Superior, made in 1895, by the party of Assistant Engineer E. E. Haskell, in connection with the resurvey of the River St. Mary, made by the War Department of the United States of America, shows that Gargantua light-house, standing on the south end of the summit of the island at the entrance of the harbor, is in * * * * and that the light is elevated 85 feet above the level of Lake Superior, instead of 97 feet, as previously reported to this Department. The light-house is a hexagonal wooden building painted white, surmounted by an iron lantern painted red, and is 43 feet high from its base to the ventilator on the lantern. The harbor may be entered by the passage either north or south of the island; the south entrance is wholly free from danger; there is a rock on each side of the north entrance, the more southerly distant 300 feet west from the northwest point of the island, with 5 feet on it, the more northerly 450 feet southwesterly from the southwest side of the point forming the harbor. A mid-channel course through the north entrance clears both rocks. There is a wharf in front of the lightkeeper's dwelling on the southwest side of the harbor, $\frac{1}{4}$ mile inside the extremity of the point. At the face of the wharf the depth is sixteen feet.

LAKE ONTARIO—BURLINGTON CHANNEL—PIER INNER LIGHTS TEMPORARILY DISCONTINUED.—Pending the execution of repairs to the inner end of the south pier protecting the channel into Burlington Bay, at the west end of Lake Ontario, it has been found necessary to temporarily discontinue the exhibition of the red and white lantern lights hoisted on a mast on the pierhead. Notice will be given of their re-establishment. When the superstructure of the pier is stripped there may be danger of fouling the hidden substructure.

F. GOURDEAU,
Deputy Minister.

DEPARTMENT OF MARINE AND FISHERIES,
OTTAWA, CANADA, 14th June, 1902.

All bearings, unless otherwise noted, are magnetic and are given from seaward, miles are nautical miles, heights are above high water, and all depths are at mean low water.

Pilots, masters or others interested, are earnestly requested to send information of dangers, changes in aids to navigation, notice of new shoals or channels, errors in publications, or any other facts affecting the navigation of Canadian waters to the Chief Engineer, Department of Marine and Fisheries, Ottawa, Canada. Such communications can be mailed free of Canadian postage.

NECESSARY QUALIFICATIONS FOR LAKE OFFICERS.

The fallacy of expecting underwriters to raise the standard of examination of officers of the merchant marine, and thus cut down their own business; and the comparative unversedness of Local and Supervising Inspectors in the science of navigation, rendering their examinations of candidates for masters and mates a farce; bring to mind the deplorable condition of life and property at sea under the United States flag.

The United States delegates to the International Marine Conference, 1889, aware of the fact, that as to qualification of officers the United States is far behind other countries, in their report to the Secretary of State, recommend, "That the present system of examination of masters, officers, engineers and pilots of steam vessels be revised, and if any defects are found they be remedied; and that examinations as to competency be extended to masters and officers of sailing vessels—the requirements for each grade to be specified and then properly enforced." And further, "there is no legal requirement as to the qualifications of officers of sailing vessels, and no certificate of qualification is required by law of such officers. If the owners or insurers do not require some evidence of competency, any man may obtain command of a sailing vessel, however unfit he may be for the position." It is well known that this last remark applies yet to sailing vessels of less than 700 tons burden; and that a revision of the system of examination of officers of steam vessels has never taken place.

Strandings and collisions are the bane of navigation, and their prevention is not a matter for undisciplined minds, but a subject of mature reflection assisted by certain well established scientific laws and rules. The untrained sailor directing his vessel by the rule of thumb, at the risk of life and property, thinks his good luck of escaping danger to be his knowledge, whereas his educated brother, knowing exactly where his reckoning will take him, finds success to be only a matter of course. Good luck is often taken for merit, especially by owners of vessels looking only for immediate gain; although it is mathematically certain that defective training of officers, and defective methods for finding the place the ship is in, are the principal causes of disaster. Instances of this kind are the use in thick weather of the floating or patent log in the vicinity of land; and the use in thick weather of the lead without regard to safety curves and guiding curves. In this respect ocean, lake and coastal navigation are all on the same low level.

In early days and even up to the present time lake navigation has been carried on in some instances without any compass and log whatever, by lights and landmarks, from point to point, or by following in the wake of some vessel or vessels ahead. This confidence in one another has frequently brought vessels to grief, in thick weather, all stranding together in company.

Other instances of negligent lake navigation are furnished by passenger steamers running distances by the time piece without any log whatever; generally being under the superintendence of parties considering even a corrected compass a superfluity aboard ship. Those things are carried on right under the nose of supervising inspectors, showing what government supervision practically amounts to.

It will be conceded by every unbiased person, that lake masters are the peers of handling vessels in narrow places and crowded thoroughfares; but their skill in making close shaves frequently misleads them to court danger when sufficient sea room is left. Intentional close shaves may be excusable in clear weather, but bring vessels to grief in fog and thick weather, because the least deviation from their courses in steering, or a change of wind and weather, or of current may bring them on the beach. With lights, and land, and sea marks obscured and shut out from view, a vessel has to depend entirely upon chart, log, lead, and compass, and in order to work them all into unison and make safe courses, space and a certain amount of scientific training is required. Therefore, to insure safety of

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life and property at all seasons, the requirements of lake officers should be:

1. Familiarity with the use of instruments for finding courses and distances made good, bearings of objects and soundings.
2. To convert true courses into magnetic courses, and compass courses, and vice versa.
3. To find the course correction for leeway and current combined.
4. To find the deviation of the compass and make up a deviation table for all courses.
5. To find distance and direction from one place or point to another.
6. To find set and drift of current.
7. To lay out on the chart the place the ship is in: 1. by compass and log, 2. by bearings and 3. by soundings.
8. To show how to navigate a vessel in thick weather by chart, log, lead and compass; allowing for accidental errors in courses and distances, and to verify position by soundings.
9. To know the rules of the road for preventing collision.

To run a vessel on the lakes in clear weather requires very little knowledge, because the lakes are well lighted like the streets in a city; but to safely run her in fog and thick weather, when all lights are extinguished, as it were, and no land to be seen, is the problem to be solved by lake officers.

Chicago, June 1902.

JOHN MAURICE.

Civil Engineer and Nautical Expert.

THE PITTSBURG CO. AND THEIR ENGINEERS.

Plans are being gone over whereby the Pittsburg Steamship Co. can enter into a more definite annual agreement in controlling the services of the engineers engaged in handling the large fleet now owned and managed by the Pittsburg Steamship Co.

The matter is the subject for immediate negotiation between the officers of the Marine Engineers' Beneficial Association and those of the steamship company, and a decision of importance may be reached before the summer is over.

A little friction has been occasioned of late between the engineers and the officers of the company over some of the men who were employed last spring. In a few instances, the men employed earlier in the year have been dismissed and members of the M. E. B. A. installed. In the place of those men dismissed the officials of the company want to hire engineers for a year, beginning with the time they are first employed.

Without an understanding between the officers of the M. E. B. A. and the steamboat company, such a scheme would cause friction, or destroy the power of the union. The M. E. B. A. has insisted that the men stand by their contracts, hence, if lake engineers are hired at all times of the year, no general strike can ever be called to compel the company to grant any certain concession. On the other hand, the contracts are universally so satisfactory, that the men fear being ever able to find such terms elsewhere, by deserting the Pittsburg people. To safeguard the interests of the engineers, however, an understanding is expected to be reached. It is considered the more important since some engineers of the fleet have already been asked to sign contracts for next year. These men are withholding their consent temporarily to see what arrangement the officers of the union can make with the company.

"BY BUILDING OUR OWN SHIPS we keep our shipbuilding plants going, employing hundreds of thousands of wage earners directly and indirectly, and help to bring greater prosperity to business men and bread winners."—American Economist. During one month France built 50,000 tons in ocean steamships. England built 1,360,000 tons and Germany 144,000 tons. In the whole year we only built 246,000 tons. Why?

SUN'S AMPLITUDES.

The following approximate amplitudes of the sun's rising or setting will be given each week in this column during the season of navigation. A second bearing may be taken by compass at sunset, by reversing the east bearing given for the nearest latitude, as the change in declination for a few hours makes but a slight difference in the true bearing of the sun's setting. The bearing may be taken when the sun's center is on the horizon, rising or setting. The elements which may be obtained by taking these amplitudes are the quantities known as local attraction, variation and deviation, or the total difference between compass and true, or geographical bearings.

LAKE ERIE AND S. END LAKE MICHIGAN, LAT. 42° N.
Date. Amplitude. Bearing P'ts. Bearing Comp.
June 26.....E. 32° N. = N. 5 1/8 E. = N. E. by E. 1/8 E.
July 4.....E. 32° N. = N. 5 1/8 E. = N. E. by E. 1/8 E.

LAKE ONTARIO, S. END HURON AND CENTRAL PORTION LAKE MICHIGAN, LAT. 44° N.
Date. Amplitude. Bearing P'ts. Bearing Comp.
June 26.....E. 34° N. = N. 5 E = N. E. by E.
July 4.....E. 33° N. = N. 5 E = N. E. by E.

N. END LAKES HURON AND MICHIGAN, LAT. 46° N.
Date. Amplitude. Bearing P'ts. Bearing Comp.
June 26.....E. 35° N. = N. 4 7/8 E. = N. E. 7/8 E.
July 4.....E. 34° N. = N. 5 E = N. E. by E.

LAKE SUPERIOR, LAT. 48° N.
Date. Amplitude. Bearing P'ts. Bearing Comp.
June 26.....E. 37° N. = N. 4 3/4 E. = N. E. 3/4 E.
July 4.....E. 36° N. = N. 4 3/4 E. = N. E. 3/4 E.

With a compass correct magnetic, the difference between the observed and true bearing or amplitude will be the variation for the locality. Should there be any deviation on the course the vessel is heading at the time of taking the bearing, the difference between the observed and the true amplitude after the variation is applied will be the amount of deviation on that course. If the correct magnetic bearing is to the right of the compass bearing, the deviation is easterly. If to the left, the deviation is westerly.

IMPORTING SCOTCH STEEL.

Finished material is as scarce as ever and some of the mills are unable to take care of their orders. It is now certain that considerable business booked for this year's delivery will go over to 1903. The American Ship Building Co. has placed an order for 40,000 tons of angles in Scotland at a price which is about \$3 a ton higher than the figure at which deliveries are now being made here. The material from Scotland is due to arrive here next week. The scarcity of material was, of course, the cause of the shipbuilding company placing the order abroad.

In an interview on the pig iron situation and the outlook, Mr. Archer Brown, of the well known firm of Rogers, Brown & Co., said:

"There is practically no pig iron of this year's possible production remaining for sale. To be exact, I should say that less than 2 per cent. of the total possible production for 1902 remains unsold. The only pig iron now available and the only iron that will be available for the remainder of the year is foreign iron. This country is now importing the product at a rate of 1,000 tons a day. While this is no very large amount, it will go a long way toward relieving the situation.

"I still hold to the opinion that this country will produce about 18,750,000 tons of Bessemer pig this year. I may say, however, that it is impossible to make a precise estimate, because of the labor troubles now prevailing. For example, more than 50 per cent. of the current production in the Schuylkill and Lehigh valleys is now cut off as a result of the anthracite strike."

A LAKE SUPERIOR SURVEY.

The steel steam yacht Search has reached the head of the lakes with a surveying party in charge of Surveyor Ray. The party is to be engaged this summer in surveying the Apostle group of islands and making a chart of them, also noting the hydrographic features, etc. The work is done under the direction of the United States engineer's office at Detroit, Major W. L. Fisk, Corps of Engineers, U. S. A., in charge.

The Search is one of the finest yachts on the lakes. She was formerly known as the Enquirer, and was then owned by W. J. Connors, the Buffalo stevedore and newspaper owner. During the Spanish-American war she was sold to the government for \$120,000. The vessel is very speedy and is well appointed and equipped for the work in hand.

ASIATIC AND OCEANIA COMMERCE.

Exports from the United States to Asia are showing a greater gain in the present year than those to any part of the world. The latest reports of the Treasury Bureau of Statistics show an increase in the exports to nearly every division of Asia during the ten months ending with April, while to South America they show a decrease in the exports to nearly every division. To the Dutch East Indies the figures show an increase of from \$1,491,142 in the ten months of 1901 to \$1,683,185 in ten months of the present fiscal year; to Hongkong, from \$6,935,703 to \$7,396,270; to Japan from \$15,118,532 to \$18,981,250; and to China, from \$7,423,343 to \$20,163,123. To China our exports for the full fiscal year seem likely to exceed those of any preceding year, and to Japan they will exceed those of any previous year except 1900, which was exceptional because of the large purchases of cotton made in the United States in that year for the Japanese market. Our exports to China, which in 1892 were \$5,663,497, seem likely to be nearly or quite \$25,000,000 in 1902. To Japan our exports in 1892 were \$3,290,111, and in 1902 seem likely to be \$23,000,000. To Hongkong our exports during 1892 were \$4,804,049, and in 1902 seem likely to be about \$8,500,000. To the British East Indies our exports in 1892 were \$3,674,307, and in 1902 will be about \$5,000,000. To the Dutch East Indies they were in 1892 \$1,372,035, and in 1902 will be about \$2,000,000. To the Russian possessions in Asia our exports in 1892 were \$120,200, and those of 1902 will considerably exceed a million dollars. To all of Asia our exports in 1892 were \$19,590,350, and in 1902 they will aggregate about \$66,000,000.

To Oceania the actual growth in our exports is not so readily perceptible because of the fact that the figures of exports to Oceania no longer include our shipments to the Hawaiian Islands, which are now considered as domestic trade with domestic territory. Comparing 1892 with 1902, however, there is a marked growth in the shipments to all of those sections of Oceania now included in the statements of foreign commerce. To British Australasia our exports were in 1892, \$11,386,677, and in 1902 will be about \$30,000,000. To the Philippine Islands our exports in 1892 were \$60,914, and in 1902 will be about \$5,000,000. The total exports to Oceania in 1892 were \$15,572,767, and these figures included \$3,781,628 of shipments to the Hawaiian Islands; in 1902 the total to Oceania, exclusive of the Hawaiian Islands will be about \$35,000,000, while to the Hawaiian Islands alone the shipments during the year, according to the best figures obtainable by the Bureau of Statistics, amount to about \$20,000,000, making our total exports to Oceania including the Hawaiian Islands about \$55,000,000, and to Asia and Oceania combined about \$120,000,000, as against \$35,000,000 in 1892.

The following table shows the exports from the United States to Asia and Oceania, respectively, in each year from 1890 to 1901:

Fiscal year.	To Asia. Dollars.	To Oceania. Dollars.
1890	19,696,820	16,460,269
1891	25,553,308	18,621,861
1892	19,590,350	15,572,767
1893	16,222,354	11,199,477
1894	20,872,761	11,914,182
1895	17,325,057	13,109,231
1896	25,630,029	17,197,229
1897	39,274,905	22,652,773
1898	44,707,791	22,003,022
1899	48,360,161	29,875,015
1900	64,913,807	*43,391,275
1901	49,390,712	*55,392,401
1902	*66,000,000	*55,000,000

*Two months of 1902 estimated. Exports to Hawaii included in 1901; 1902 estimated at \$20,000,000 for each year.

REPORTED BY THE LOOKOUT.

The Co-Operative Tug Co., doing business at Ashtabula with chartered tugs, the members of whom were former employees of the Great Lakes Towing Co., has purchased the tug E. E. Rice, of Joe Dewhrist, of Huron, and will put the tug in service at once. The purchase price was \$5,000. The fishing tug Annie R., which has been in the towing business, will resume fishing.

It is not often that a frozen compass causes the loss of a vessel. Yet the fact of the two spirit compasses of the steam fishing vessel Jamesia becoming frozen during a heavy snowstorm, led to the stranding and loss of that vessel off the Iceland coast on March 24 last. The master set a safe course N. by E. on the evening of that day, but the compass becoming frozen, there was nothing to indicate whether or no the course was made good. Under these circumstances the skipper was exonerated from blame; and, incidentally, the loss of the Jamesia serves to illustrate the

perils and hardships which accompany the fisherman's lot.—Syren and Shipping, London.

The fine of \$500 imposed upon the tug Woods for carrying a passenger in nowise warranted by law by Collector of Customs Bonner, at Toledo, has been remitted to \$20 through an appeal made by Capt. Nagle, local manager of the tug, direct to the Treasury Department. The Woods, it will be remembered, is the tug which on the evening of May 7 ran into and sank the launch Frolic, resulting in the drowning of seven people. The testimony at the investigation developed the fact that there was a woman on the tug. The launch was fined \$200 for not displaying proper signal lights. Capt. Hepburn made application for the remittance of his fine, but the matter has been referred to the Treasury Department.

The N. Y. Marine Journal says: "The custom of having a strand of colored manila yarn run into rope of all sizes in use by transportation companies in this harbor is an excellent one. The wharf rat, as the petty junk thief is termed, looks with longing eyes for the opportunity to swipe a part of a coil of rope when he cannot steal the whole of it. His pal, the junk dealer, asks no questions as to where he gets the plunder so long as it cannot be identified. He will not, however, purchase rope with the colored yarn in it, as the mark can be sworn to by its owner." This, however, was so common a custom a quarter of a century ago that it seems chestnutty to make mention of it now.

"If we start our lines of ships, if we girdle the West Indies, South America and the Pacific with our telegraph lines and our ships, we shall revolutionize the trade of those countries, furnish outlets for our manufactures and hold for many years the prosperity of to-day."—M. E. Ingalls. "The passage of the ship subsidy bill would have but one effect so far as the new enterprise is concerned. It would enable us to sail ships now building and hereafter built under the American flag on an equal footing with the ships of other countries. The published statements that the ship subsidy bill would enable us to sail our foreign vessels under the Stars and Stripes are incorrect, as the bill specifically states that only American-built ships can benefit by its provisions, and, furthermore, such a course, if possible, is contrary to the whole scheme."—C. H. Griscom of the steamship combine.

Government Proposals.

Sealed proposals will be received at the office of the Light-House Board, Washington, D. C., until 2 o'clock p. m., July 10, 1902, and then opened, for furnishing the materials and labor of all kinds necessary for the construction and delivery of the twin screw steel steam light-house tender Crocus for a fixed sum for said vessel delivered either at the Buoy Depot, Buffalo, N. Y., or at the Light-House Depot, Tompkinsville, N. Y., as will be determined upon by the Light-House Board. Proposals, plans and specifications can be had by applying to the Light-House Board, Washington, D. C., or at the office of the Light House Inspector, Buffalo, N. Y. George C. Remey, Rear-Admiral, U. S. N., Chairman. 25-26



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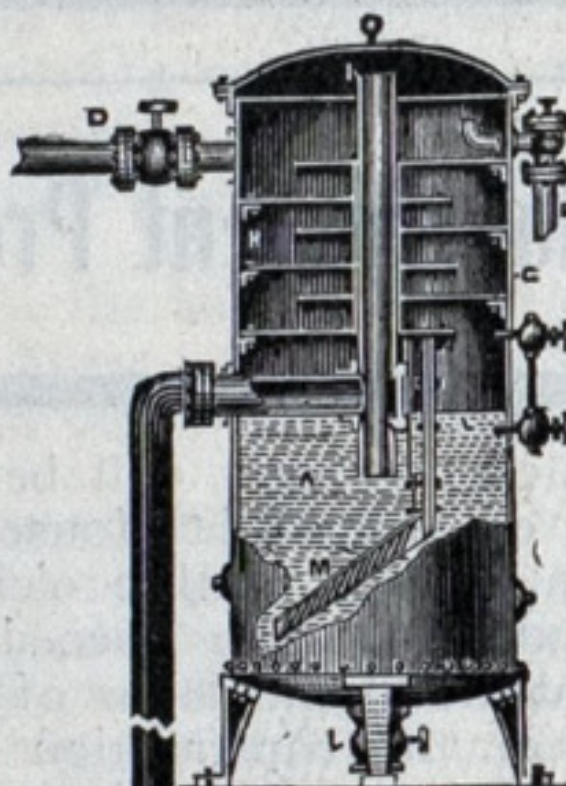
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Mitchell Transportation Co.'s steamer
Hendrick S. Holden.

Minnesota Iron Co.'s steamer Presque Isle.
American Steel Barge Co.'s steamer Alex.
McDougall.

Lake Michigan & Lake Superior Trans-
portation Co.'s steamer Manitou.

Bessemer Steamship Co.'s steamers S. F.
B. Morse and Douglas Houghton.

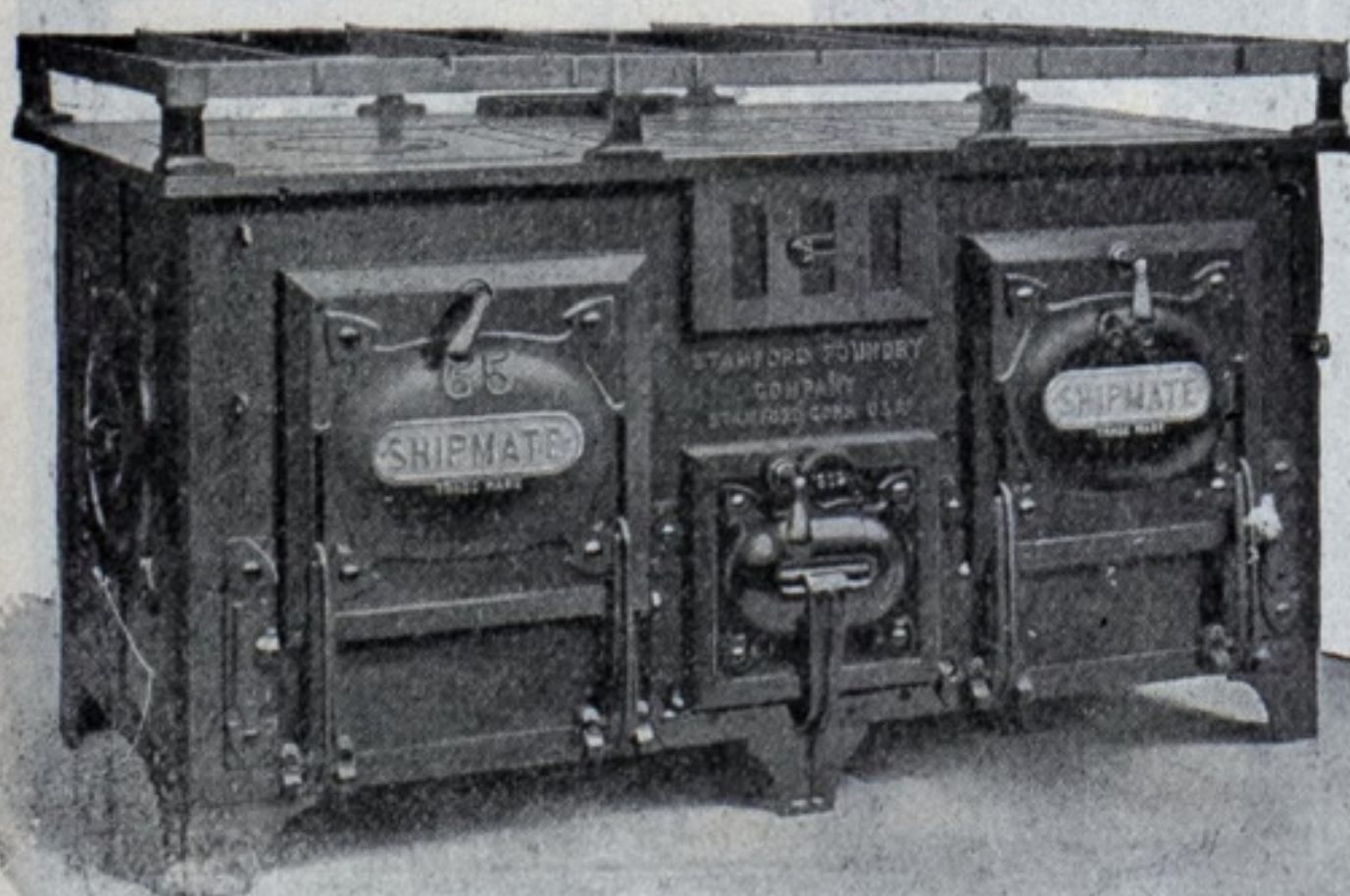
American Transportation Co.'s steamers
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Red Star Line's steamers Robert Mills and
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Wilson Transit Line's steamers W. D. Rees
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And the steamer William R. Linn.

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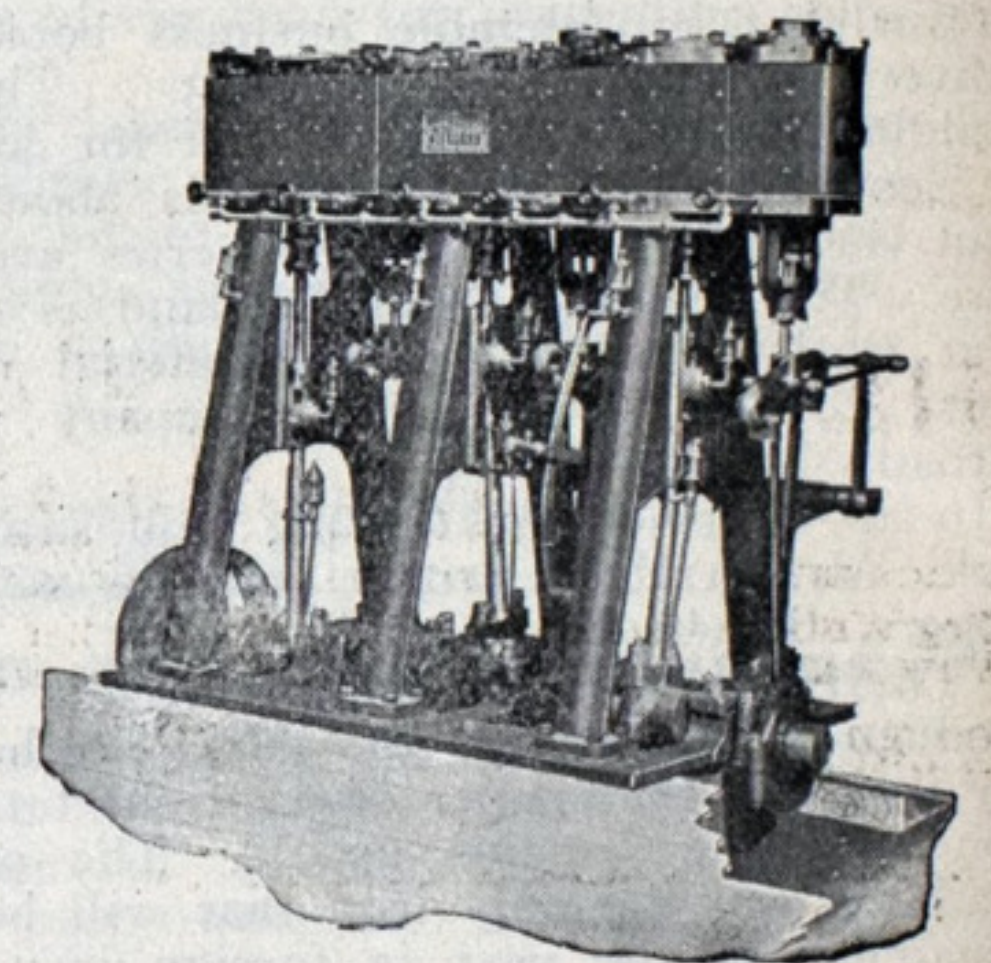


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LATEST MARINE PATENTS.

702,393.—Shifting device for piers, etc. William D. Baldwin, New York, N. Y., and August Sundh, Yonkers, N. Y., assignors to Otis Elevator Company, East Orange, N. J.
 702,399.—Life-boat. Lemuel Brown, Saugatuck, Mich.
 702,507.—Navigational sounding apparatus. Commander Zera L. Tanner, U. S. Navy, retired, Washington, D. C.
 702,627.—Land-reclaiming dock. Ephraim Chaquette, New Rochelle, N. Y.
 702,628.—Clam-dredge. Ephraim Chaquette, New Rochelle, N. Y.
 702,629.—Clam for dredges. Ephraim Chaquette, New Rochelle, N. Y.
 702,651.—Bulkhead-door. Walter W. Ife, Buffalo, N. Y.
 702,705.—Floating dredge. Ephraim Chaquette, New Rochelle, N. Y.
 702,713.—Apparatus for extinguishing fires in closed compartments. Henry B. Febiger, Philadelphia, Pa.
 702,714.—Process of extinguishing fire in closed compartments. Henry B. Febiger, Philadelphia, Pa.
 702,728.—Submarine boat.—John P. Holland, Newark, N. J., assignor to Electric Boat Company.
 702,729.—Submarine boat. John P. Holland, Newark, N. J., assignor to Electric Boat Company.
 702,823.—Boat. Caesar Schaer, Superior, Neb.
 702,965.—Floatable caisson for cleaning ships' sides and bottoms. Robert Kaucher, Rochester, N. Y.
 703,139.—Stellar compass and great-circle-course projector. Robert T. Lawless, Alameda, Cal.
 703,181.—Marine propeller. Carlos Constantino da Rocha Carvalho, Lisbon, Portugal.
 Trade-Mark 38,176.—Anchors. The Admiral Anchor Co., Chester, Pa. The word "Admiral" used since December 15, 1900.

Mrs. George Cummings, of West Cape May, was the recipient the other day of a letter which she highly prizes. A little over a year ago she wrote a message, put it in a rubber-corked beer bottle, and threw it into the waters of the Delaware bay, near her parents' home, Fishing Creek. A few days ago she received a letter written by the captain of the British warship Thunderer, in answer to her message placed in the bottle. The commander of the Thunderer wrote that while off the coast of Portugal a shark was caught, and when it was cut open the bottle was found inside of it. The note being noticed in the bottle, it was broken and the message read.

NOTES.

The American-Hawaiian Steamship Co., after a thorough investigation, has come to the conclusion that oil as fuel will be equally as good as coal, and only half as expensive. The steamships of this company are the largest of their type, and owing to the great distance of their runs, their success as users of oil will leave no doubt as to its value as a substitute for coal.

AN interview, as quoted by The Times' Paris correspondent, states that while J. P. Morgan was in Paris he made no effort to see the officers of the French steamship companies, though it is said he expressed himself as ready to communicate with them. The authority expresses the hope that Morgan's operations will open the eyes of the government of France and induce it to protect the shipping industry of that country.

THE Canadian Government has granted the Dominion Iron and Steel Co. leave to bring a petition of right in the Exchequer Court to recover \$196,000 of iron and steel bounties. The point turns on a dispute between the Trade and Commerce Department and the Auditor General. The former has reported in favor of paying the bounties on the steel as it leaves the furnace. The Auditor General refuses payment on the ground that the bounties should be computed on the weight of "cold bar." The Exchequer Court will decide what amount is legally due to the company.

W. S. CHAMP, secretary of the Baldwin-Ziegler arctic expedition, and Dr. G. Shurkley, of New York, have started for Tromsø, Norway, whence they will sail on July 1st, on the Frithjof, for Franz Josef Land, to take coal to Baldwin's ship, the America, and obtain news of the arctic explorer. Champ expects to find the America in about 82 degrees. If Baldwin has succeeded in his dash to the Pole he will be brought back. Otherwise the Frithjof will leave a well equipped sledge party to search for Baldwin. The Frithjof will return on October 1st at the latest.

THE conviction of Stephen S. Hulbert, of Battle Creek, Mich., who was found guilty of going in swimming in Gogauac Lake, was set aside by the supreme court in an opinion by Justice Moore, concurred in by the entire bench. Hulbert has a cottage at the lake and land adjoining the water. He claimed the right to swim in the lake, but the city, which draws its water supply from the lake, claimed that the waters were polluted thereby. Hulbert was arrested, tried and convicted. The supreme court finds, however, that as a riparian owner Hulbert has a right to swim in the water adjoining his cottage, regardless of the other riparian owners.

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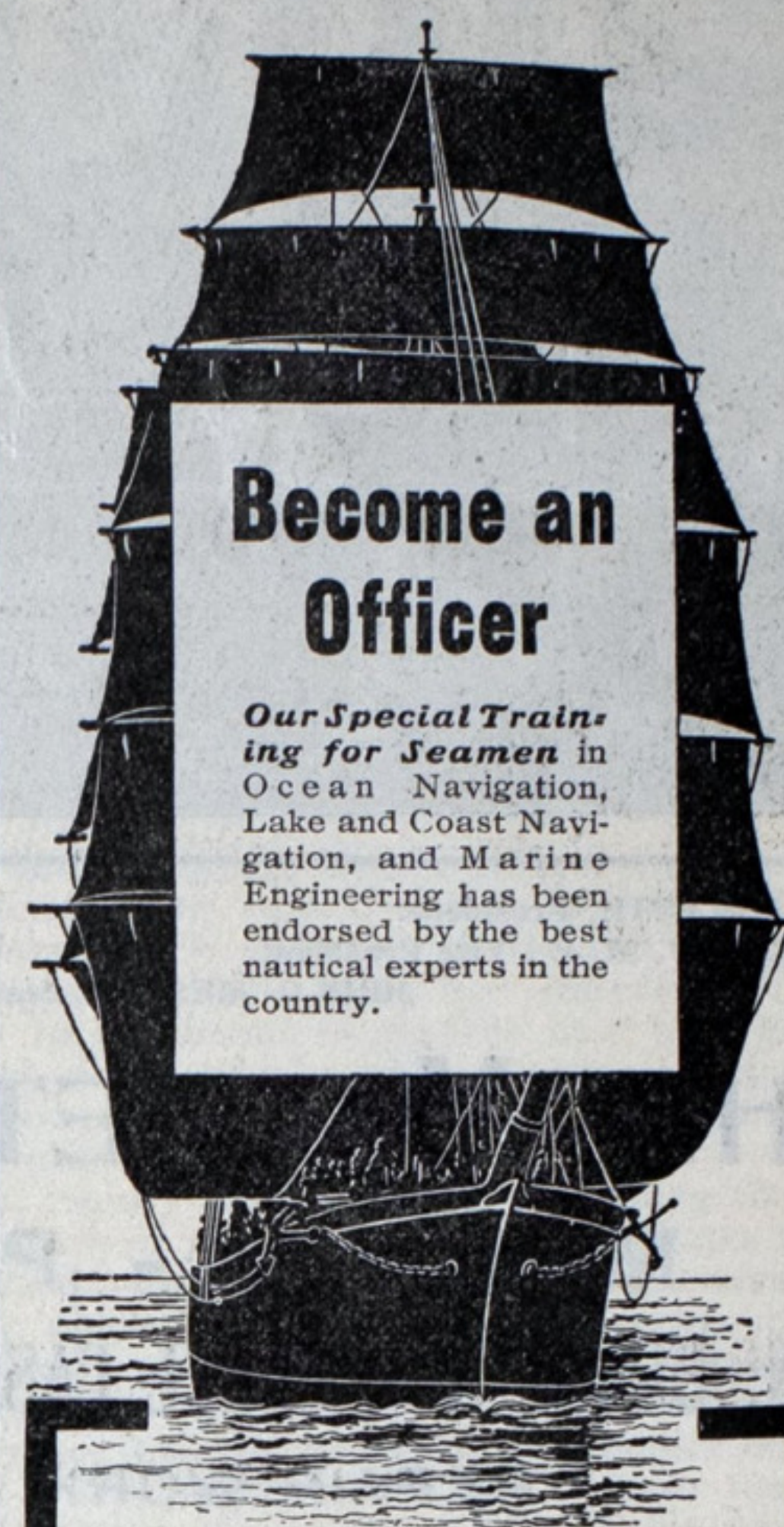
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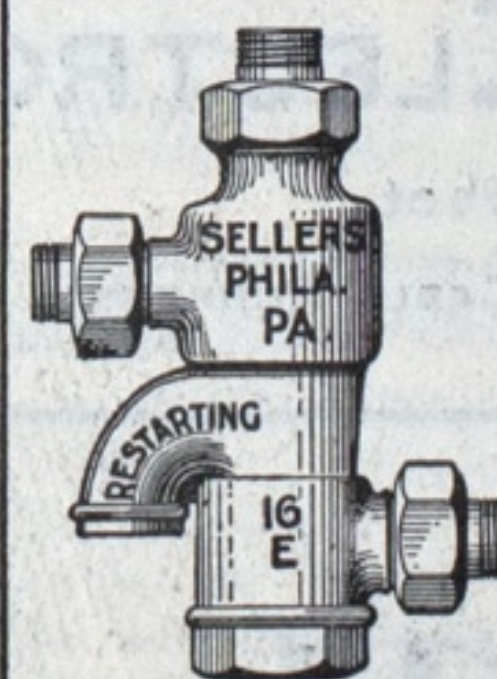
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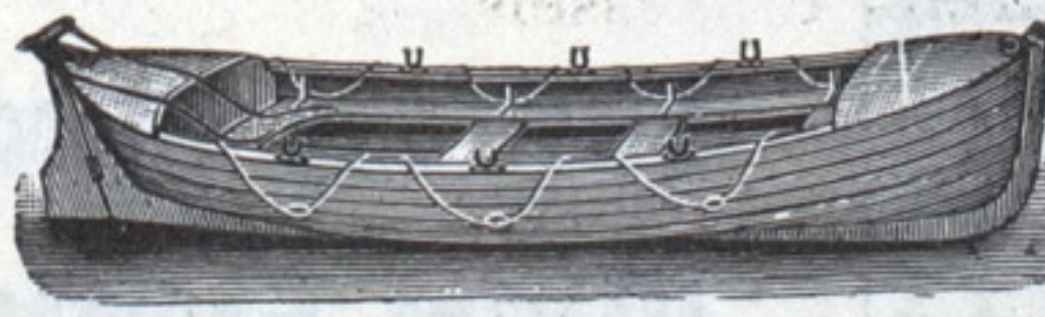
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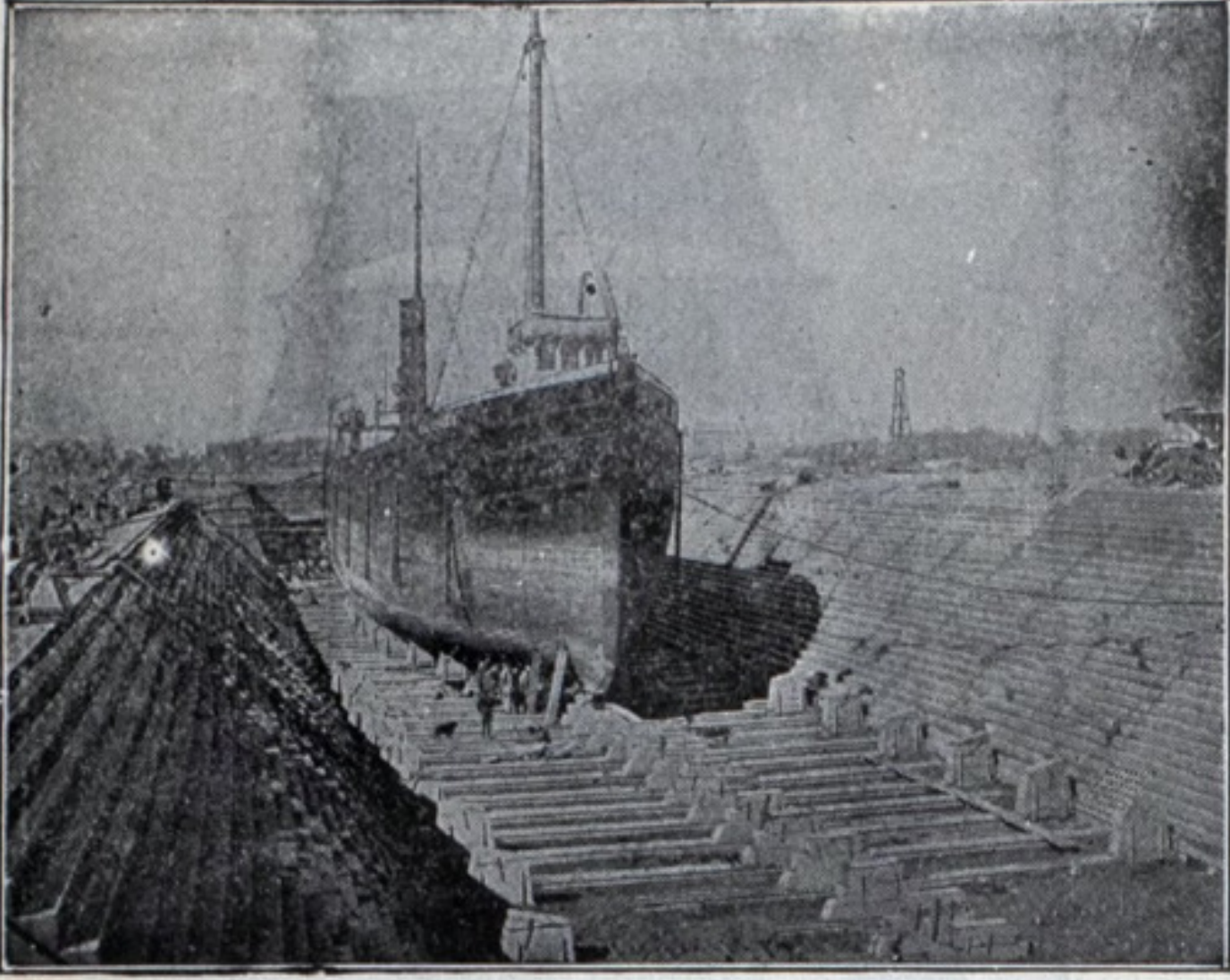
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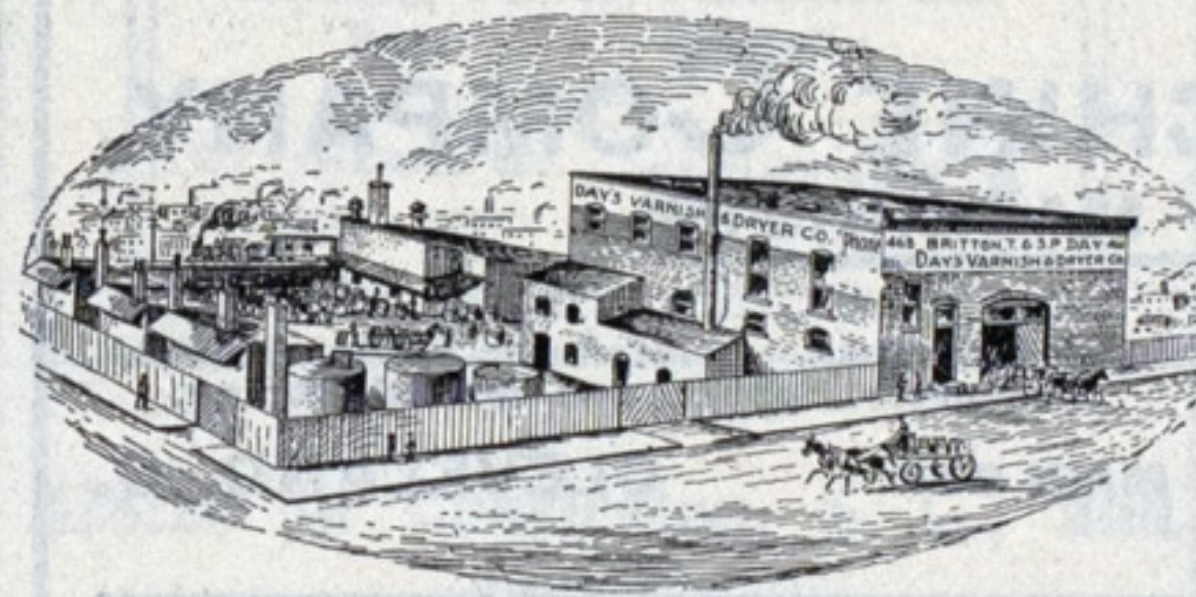
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